

J.A. Davison d.d. H.M.A.



Ex Libris

PERCY STAFFORD ALLEN

huius Collegii Praesidis

1924 – 1933

12.x.33.

T. LUCRETI CARI

DE RERUM NATURA

LIBRI SEX

VOLUME II

T. LUCRETI CARI
DE RERUM NATURA
LIBRI SEX

WITH NOTES AND A TRANSLATION

BY

H. A. J. MUNRO
FORMERLY FELLOW OF TRINITY COLLEGE CAMBRIDGE

FOURTH EDITION FINALLY REVISED

VOLUME II: EXPLANATORY NOTES

LONDON
GEORGE BELL AND SONS
CAMBRIDGE: DEIGHTON BELL AND CO.
1900

T. LUCRETI CARI
DE RERUM NATURA
LIBRI SEX

EDITED BY

H. A. J. MUNRO
FORMERLY FELLOW OF TRINITY COLLEGE CAMBRIDGE

FOURTH EDITION



LONDON
GEORGE BELL AND SONS
CAMBRIDGE: DEIGHTON BELL AND CO.
1900

First Edition, 1864. *Second Edition*, 1866. *Third Edition*, 1873.
Fourth Revised Edition, 1886. *Reprinted*, 1893.
1900

LUCRETIUS.

NOTES II

EXPLAINING AND ILLUSTRATING THE POEM

JEROME, in his additions to the Eusebian chronicle, under the year of Abraham 1923 = Olymp. 171 3 = U.C. 660 or B.C. 94 has these words *Titus Lucretius poeta nascitur. postea amatorio poculo in furorem versus cum aliquot libros per intervalla insaniae conscribsisset quos postea Cicero emendavit, propria se manu interfecit anno aetatis* XLIIII. Donatus in his life of Virgil writes thus according to Reifferscheid Suetonii reliq. p. 55, *initia aetatis Cremonae egit* [*Vergilius*] *usque ad virilem togam, quam* XV *anno natali suo accepit isdem illis consulibus iterum duobus quibus erat natus, evenitque ut eo ipso die Lucretius poeta decederet.* Lucretius died then on the ides of October U.C. 699 in the second consulship of Pompey and Crassus; and Jerome has misdated the year of his birth by three or four years. Schoene's careful critical edition of the chronicle, founded on excellent manuscripts, enables us now to speak with confidence of Jerome's testimony. Two of the best of them assign the birth of Lucretius to the year of Abraham 1922 instead of 1923. In either case Jerome is wrong by a few years, as in many other instances; and we have not the key to explain the error. It appears to me as certain as such a point can well be, that Lucretius was born in the latter part of B.C. 99, or else in the early months of 98, as is assumed by Usener in the Rhenish Museum, vol. XXII p. 442 and vol. XXIII p. 678; since in either case he would be in his 44th year on the ides of October 55, U.C. 699. Now no one who has read what so many scholars have written on the question, Joseph Scaliger, Ritschl parergon p. 609—638, Mommsen Abh. saechs. Ges. II p. 669—693, Reifferscheid l. l. p. 363—435, will doubt that Jerome's additions to the chronicle are servilely copied from the lost work of Suetonius de viris illustribus, nor feel much less confidence that Donatus' account comes also from the same source. These are the sole circumstances

recorded of his life; nor is anything whatever known about his family: indeed the only other instance I have been able to find of the cognomen Carus attached to the name of Lucretius is a very doubtful one occurring in Mommsen's inscr. reg. Neapol. Lat. 1653 'Beneventi in aedibus archiepiscopi'. But Prof. Sellar well remarks that literary distinction at this time was almost confined to the higher classes; and we need not infer from the rarity of the cognomen that he did not belong to an old family. In this age the cognomen was often varied even in the same family: the father of the contemporary poet and orator C. Licinius Calvus is always called Licinius Macer; nay Calvus himself is once so styled by Cicero ad Q. fratrem II 41. Lucretius therefore may well have belonged to the high patrician gens of the Lucretii Tricipitini whose glories were chiefly linked with the early history of the commonwealth and were doubtless in great measure legendary, but not the less valued perhaps on that account. Though Lucius Publius and Spurius are more common among the Tricipitini, and a Hostus is named by Val. Maximus, yet a T. Lucretius was consul with P. Valerius in 246, the second year of the commonwealth, and again in 250 with the same colleague; Titus too was the name of the father and grandfather of L. Lucretius Tricipitinus who was consul and triumphed over the Aequi and Volsci in 292. Flavus appears in the fasti consulares as a cognomen of these Tricipitini. Ofella, Gallus, Trio are attached to other Lucretii, probably plebeians, but sufficiently illustrious. As Suetonius took great pains in searching out the best original authorities for all his statements, the facts mentioned above, even if somewhat coloured, must be accepted as true in the main, as Lachmann observes, p. 63; the more so that in February of the year 700 Cicero writes to his brother Quintus II 11 the well-known sentence *Lucretii poemata ut scribis ita sunt* cet. This is the only occasion on which he ever mentions the poet's name, and it proves that four months after the death of Lucretius he and his brother Quintus had read the poem which, as we saw in the introduction to notes 1, could not have been published in the author's lifetime. Now this seems too short a time for the Ciceros to have read and to be writing about the work, if neither of them had had anything to do with preparing it for publication. But to which of the two brothers does Jerome refer? in Latin or English when Cicero or Cæsar is mentioned, if there is nothing else to determine who is spoken of, the orator or the dictator is naturally implied; and Jerome in a dozen of his additions to the Eusebian chronicle thus denotes Marcus. But both Lachmann and Bernays decide that Quintus must be meant: 'in re nota' says the former 'nihil opus fuit ut Ciceronis praenomen poneret, cum nemo ignoraret Quintum intellegendum esse'. But why it should be a *res nota* to Jerome and his contemporaries or even to Suetonius I cannot see. Had Jerome found Quintus in his original, he must have added it,

nor would Suetonius himself have omitted it. Nor can I perceive the least internal probability in favour of Quintus, who in those very months must have been thinking more of the art of war than the art of poetry; for in the summer of 700 he was fighting as Cæsar's legate in Gaul and Britain. And why should not Marcus be the editor? he does not appear to have been very actively employed during those months; and moreover he was one of those busy men who always find time for any fresh work they are called upon to do. It may have been a dying request of the poet's; for it is more than likely from what he says of Memmius that he would look on Cicero with admiration and esteem him as the saviour of his country. Cicero's virtues and abilities were just of the sort to excite the love and wonder of a retired student, who is more apt in practice to overrate than undervalue those who are engaged in active life, whatever his speculative sentiments may be. And here we are not left solely to conjecture: the many imitations we find in Lucretius of the few hundred extant lines of Cicero's Aratea prove, little as it might have been expected, that he looked upon this translation as one of his poetical models. Cicero, though he set small store on Epicurus and his system, was on terms of intimate friendship with the leading epicureans both Greek and Roman: to one of them, Philodemus as it now appears from the Herculanean fragments recently published, we know he was greatly indebted in his de natura deorum. And if Lucretius were quite unknown to him, a word from Atticus or even from Memmius would have made him undertake what would seem so slight a task to a man of his laborious and energetic habits. The poem must have been given to the world exactly as it was left by the author, with nothing added or taken from it to all appearance. If Cicero then was editor, he probably put it into the hands of some of his own amanuenses or entrusted it to the large copying establishment of Atticus; and he may have spent only a few hours in looking over it or hearing it read to him: his name rather than his time was probably wanted by the friends of Lucretius. All this would of course be the idlest guess-work, if it were not for the express statement of Jerome, that is of Suetonius, that he was editor; a statement which is in some measure confirmed by the younger Pliny, epist. III 15, who thus writes to his friend Proculus, *Petis ut libellos tuos in secessu legam examinemque an editione sint digni, adhibes preces, adlegas exemplum; rogas etiam ut aliquid subsecivi temporis studiis meis subtraham, inpertiam tuis. adicis M. Tullium mira benignitate poetarum ingenia fovisse.* The *exemplum* in question may well have been the poem of Lucretius: Cicero in truth may have stood in much the same relation to our poem that Augustus did to the Aeneid, patron more than actual editor. Such a function might be a compliment either to the author, as in the case of Lucretius and that mentioned by Pliny; or to the editor: comp. Probus' life of Persius

'leviter retractavit [Persii librum] Cornutus et Caesio Basso, petenti ut ipsi cederet, tradidit edendum'. Bassus was Persius' earliest friend: 'amicos habuit a prima adulescentia Caesium Bassum poetam cet.' Professor Sellar in his Roman poets of the republic p. 203, though not inclined to admit the editorship of Cicero, yet argues that Jerome must be speaking of Marcus. A brilliant critic in Macmillan's magazine, no. 67 p. 52, calls in question this tradition and finds it difficult to get over the fact that Lucretius is dismissed by Cicero in a dozen cold words. If however the whole circumstances of the case are examined, this difficulty will I believe wholly or in great measure disappear. These dozen words occur in a hurried note to his brother of less than a dozen lines; it is the only note addressed to Quintus during the whole and more than the whole interval between the death of Lucretius and the publication of his poem. The only other letters written by him during those months are a few formal dispatches to officials on public business, with the exception of one brief hurried note to Atticus written in November from his Tusculan, to which he had retired for a few days' relaxation. In this note he gives half a dozen words to his own de oratore which he tells Atticus is now fit for publication and may at once be transcribed by his copyists. He did not therefore write to Atticus or others about Lucretius, because he was in Rome, seeing Atticus daily and, if Lucretius' poem was then in his hands, discussing doubtless with him and others its merits and condition. I find in Cicero no such anxiety, as this writer finds, about the phrases of any friend's essay. The expression 'inhibere remos' occurred in his own academics: he had rashly allowed Atticus to substitute it in the copies already made for his own 'sustinere remos'. When he found out the true meaning of that nautical expression, he writes in the greatest hurry and trepidation to try and prevent the solecism going forth to the world, especially to the archcritic Varro to whom the work was dedicated. The mere mention then of Lucretius, slight as it is, would seem to indicate of itself some relation between him and the orator. As remarked on II 1092, it is not Cicero's custom to quote from contemporaries, numerous as his citations are from the older poets and himself. Had he written on poetry, doubtless Lucretius would have had a prominent place in it; but even where in his rhetorical works he criticises so fully the orators of the day, he abstains from quoting their words. In all his writings the name of Catullus does not once appear, though his poems deal so much with the topics and names of the day most interesting to Cicero; notwithstanding his brilliant compliment to the orator which must have been thoroughly felt, his agreement with him in politics, his lampoons on Caesar and the Caesarians; though they both in different ways suffered so grievously from Clodia or Lesbia the terrible 'Clytaemnestra quadrantaria', the Medea of the Palatine. It has been shewn in our

notes that more than once in his philosophical works he must refer to Lucretius. Had the poet been alive when the de finibus or the de natura was written, he might have taken the place of Torquatus or Velleius.

However this may be, it is certain enough that the poem was given to the world early in the year 700, and in the unfinished state in which it was left by the author: indeed I hardly like to say how strong my suspicions, even my convictions are, that many of the most manifest blunders in the poem as we now have it appeared in the very first edition of it whether from design or inadvertency: probably both; for later in this very year Cicero writes to his brother in Britain, III 6 6, that he despairs of procuring for him accurate copies of Latin writers, *ita mendose et scribuntur et veneunt.* It is not easy in any other way to explain the agreement of Macrobius and Nonius with the archetype of all existing manuscripts in some indisputable corruptions. The story of the poet's madness has been examined by Prof. Sellar l. l. p. 200. Whether there is any truth in it or not, it cannot be doubted that it was already current in Suetonius' time; yet few will deny 'that it would be strange if so remarkable a poem had been written in the lucid intervals of insanity'. This poem was designed to be a complete exposition of the physical system of Epicurus, not for the sake of the system itself, but in order to free the minds of men from the two greatest of all ills, fear of death and fear of the gods, by explaining to them the true nature of things. So far he followed in the steps of his master who with the same end in view composed among many other works one entitled περὶ φύσεως in 37 books, of which some wretchedly scanty and incomplete fragments have been published in the Herculanean volumes. How much Lucretius was indebted to this more important work may be gathered from the letters of Epicurus preserved in the tenth book of Diogenes Laertius, which give a brief epitome of his system and have been so largely used in this commentary. The poet's veneration for his teacher would constrain him to borrow from him his matter; his manner and style are altogether different. To Lucretius the truth of his philosophy was all-important: to this the graces of his poetry were made altogether subordinate. To us on the other hand the truth or falsehood of his system is of exceedingly little concern except in so far as it is thereby rendered a better or worse vehicle for conveying the beauties of his language and the graces of his poetical conceptions.

Is then the epicurean system well or ill adapted to these purposes? As a poet in that age could scarcely be the inventor of a new system of philosophy, Lucretius could hardly help adopting some one of those which were then in vogue; if not the epicurean, then the academical or peripatetical or stoical. To construct a poem out of either of the first two with its barren logomachies, wire-drawn distinctions without a

difference, would have truly been to twist a rope out of sand: of course I am speaking of these two systems as they were in the days of Cicero and Lucretius; though much the same might be said of them in the age of their first propounders. Well then the stoical? I unhesitatingly assert that for all purposes of poetry both its physical and ethical doctrines are incomparably inferior to those of Epicurus. Read the de natura deorum; compare their one wretched world, their monotonous fire, their rotund and rotatory god, their method of destroying and creating anew their world, with the system of nature unfolded by Lucretius, grand and majestical in its general outline, with some strangely suggestive anticipations of the latest marvels of physical science. Then look at their sterile wisdom and still more barren virtue with their repudiation of all that constitutes the soul of poetry. Lucretius on the other hand can preach up virtue and temperance and wisdom and sober reason with as loud a voice as any of your stoics; and then what inexhaustible resources does he leave himself in his *alma Venus* and *dux vitae dia voluptas*! Are examples wanted? then contrast the varied graces and exuberant beauty of Virgil, when he is pleased to assume the garb of an epicurean, with the leaden dulness and tedious obscurity of the stoic Manilius; or compare the rich humour and winning ways and ease of a Horace with the hardness and thinness and forced wit of a Persius. All this it may be said is in the men, not their systems. Yes, but the proper choice of a subject is half the battle. And yet the picturesque English historian speaks of the epicurean as the meanest and silliest of all systems; and one German critic after another sees fit to denounce it as beneath contempt. In this as in many other points the poet has received more justice at the hands of his latest English critic, and from the brilliant rhetoric of Martha in his Lucrèce. Lessing in his essay to prove that Pope because a poet could not be a metaphysician says 'if I am asked whether I know Lucretius, whether I know that his poetry contains the system of Epicurus, I would confidently answer, Lucretius and the like are verse-makers not poets'; and again 'the poet speaks with Epicurus, when he would extol pleasure, and with the porch, when he would praise virtue'. But this is what Lucretius can and does do: virtue at all events he can praise on the broad grounds accepted by the general feeling of the world, if he is unable to adopt the narrow and intolerant views of his adversaries.

Lucretius possessed indeed in as high a degree as any Latin poet two qualities which a poet can ill dispense with, the power of vividly conceiving and of expressing his conceptions in words. This has enabled him to master the great outlines of the epicurean universe of things, and by a succession of striking images and comparisons drawn from the world of things which was going on before the eyes of him and his readers to impress this outline on their minds. The two first books

appear to be finished and to have received almost the last touches of the author with the exception perhaps of certain portions of the second, pointed out in their several places. The greater part of these books is devoted to a very complete and systematical account of the natures and properties which belong to the two great constituents of the universe, atoms and void. Given to him this universe in working order there is much that is striking, much even that may be true, much at all events that Newton accepted, in this description; something too in which he was in advance even of the age of Newton. We of course care, not for its scientific value or truth, but for its poetical grandeur and efficacy upon our imaginations; and in these respects we are most amply satisfied. The least interesting portions of these books are perhaps the episodes in which the rival systems of Heraclitus Empedocles and Anaxagoras are examined and refuted. They are closely connected with the general subject and the poet is much in earnest, but, as was indeed to be expected and as is pointed out in the proper place, he could only criticise them from his own point of view and starting from his own principles. The third book is likewise tolerably finished; and in no portion of his work does he more fully display his power of sustained and systematical reasoning. Here too, if his premisses are granted, his arguments are striking and effective, and carried through with the energy of a fanatical conviction. The poetry and pathos and earnest satire of the last 260 verses are of a very high order. The fourth book is in a much less complete condition than those which precede. Yet in the first part of it, in which the epicurean theory of images is expounded, he wrestles with its gigantic difficulties and often overcomes them with singular power energy and controversial address. And in truth the most obvious objections to this doctrine of images apply almost as strongly to the Newtonian theory of the emission of light which in spite of them so long maintained its ground. The later sections of the book, which explain the operations of the other senses, the way in which the mind and the will are excited, the theories of food, walking, sleep and the like, are more sketchy and unfinished, though they often shew acute observation. The concluding two hundred verses are very peculiar and display a satirical vein as powerful and much more subtle than that of Juvenal. The fifth book is also unequal: some few lines, pointed out in their place, are almost unworthy of the poet and seem to have been written down to fill up a gap until he found time to change them for better. The portions too in which he describes the movements of the sun and moon and stars will not afford any great gratification. But more than half the book, namely 416—508 and 771 to the end, are in his noblest manner. Nothing in Latin poetry surpasses, if it even equals these verses, in grandeur sublimity and varied beauty: occasionally too some fine touches of earnest satire are met with: in these passages, as well as in those mentioned

above, he nobly maintains the reputation claimed for his countrymen in that style of writing. The sixth book is unequal like the fifth: the beginning as far as 95 is very unsatisfactory and confused, as has been pointed out in the notes. Then follow some hundred verses in which the nature and working of thunder and lightning, the formation of clouds rain and the like are described. This portion is most carefully elaborated. There is not much room for the highest virtues of poetry; but still great qualities are here brought into play, quickness of observation and power of describing what is observed, vivacity of narrative, fine perception of analogy and much ingenuity of speculation: the language is simple, terse, direct and telling. Most of these merits are displayed in greater or less measure even in the flattest and most prosaic portions of the poem; but the verses here spoken of are not of this number. Quite recently I was glad to find the opinion I had long entertained of this section of the poem confirmed by the greatest of German critics in Riemer's Mittheilungen ueber Goethe II p. 645; and this is not the only place in which Goethe expresses the most unbounded admiration for our poet. What follows is not so satisfactory: Lucretius has to include a great variety of questions in a very limited space. These seem to be selected sometimes at hap-hazard: nearly 200 lines are given to the magnet, lively verses enough and very ingenious, but out of all proportion to the subject-matter. The description of the plague of Athens concludes the book: it is manifestly unfinished; and though it contains much noble poetry, it suffers from the unavoidable comparison with the austere beauty and simple grandeur of its original, which the poet has not always understood and from which he has sometimes departed without good cause. He has shewn himself here both too much and too little of a physician: he is too technical for the poet, too inaccurate for the philosopher.

In style and language Lucretius has manifestly adopted a somewhat archaic tone, differing more or less from that of his extant contemporaries. This has been occasioned mainly by his admiration for Ennius and Naevius and the old tragic poets Pacuvius and Accius: their extant fragments prove how carefully he had studied them. In Greek literature too his tastes seem to have carried him to the older and more illustrious writers. In this as in so many other respects he appears to have stood quite aloof from the prevailing fashions of his day; for the great mass of contemporary poets, among them even Catullus at all events in his heroic and elegiac poems, chose to form their style after Euphorion of Chalcis and the affected Alexandrine school of poets, Callimachus and the rest, whose influence extended far into the Augustan age, though they wrote in what was to themselves really a dead language. It is owing probably in great measure to his admiration for Lucretius that Virgil and thereby Latin poetry were saved from falling even more

than they did under this baneful influence. Epicurus of course Lucretius would study for other purposes than those of style, in which he would have found him but a sorry master; but the Greek writers still wholly or partly extant, whom, to judge by his imitations of them, he most loved and admired, were Homer Euripides Empedocles Thucydides and Hippocrates. Doubtless too he had carefully studied the old philosophers Democritus Anaxagoras and Heraclitus, but mainly for their philosophy. Plato he would seem to have known something of from more than one passage of his poem. His illustrious contemporary Cicero had like him an intense esteem for Ennius, a profound contempt for the 'cantores Euphorionis' who presumed to despise Ennius. Many years before Lucretius wrote his poem Cicero in boyhood had translated the works of Aratus. This translation of which large fragments are preserved shews much spirit and vivacity of language, though its poetical merits cannot be mentioned beside those of Lucretius. Yet the latter strangely enough, moved it may be by his general admiration for the man, had made this youthful production one of his models of style, as may be demonstrated, not by one or two, but by twenty manifest imitations of the few hundred lines still existing. In poetical diction and metrical skill Lucretius has surpassed not only this boyish essay, but doubtless their common master Ennius as well; for the first inventor is naturally left behind by his followers. Yet Lucretius undoubtedly wished it to be known that the latter was his master and model in Latin poetry. Free from all jealousy and empty pretension, he took every opportunity of acknowledging his obligations to those to whom he felt indebted: first and foremost to Epicurus who shewed the path which leads to truth and reason without which all other gifts were vain, and after him to Democritus and the other early Greek philosophers. Empedocles receives his homage partly as one of these, but mainly because he gave him the best model of a philosophical poem. Ennius is extolled at the beginning of his work as his master in Latin verse. Lucretius thus to all appearance stood aloof from the swarm of contemporary poets and left them to quarrel and fight among themselves, as even the best of them seem to have been ready to do. The Augustan poets of the first rank afford a rare and most pleasing example of brotherly harmony and good feeling; but if Catullus and Calvus had not died in early manhood, there are many indications that they and their school would have come into painful collision with Virgil and Horace and their partisans.

Notwithstanding the antique tinge which for poetical ends he has given to his poem, the best judges have always looked upon it as one of the purest models of the Latin idiom in the age of its greatest perfection. Fifty vouchers might be cited for this; but the following will suffice: Scaliger declares emphatically that there is no better writer than Lucretius of the Latin language. Lambinus and Lachmann have scarcely

been surpassed in modern times as Latin scholars and Latin writers, and both moreover studied Lucretius with unwearied diligence: the former who edited Plautus Cicero and Horace as well as Lucretius pronounces him to be 'omnium poetarum Latinorum qui hodie exstant et qui ad nostram aetatem pervenerunt elegantissimus et purissimus idemque gravissimus atque ornatissimus'; and in another place he tells Charles IX that the style of Cicero or Caesar is not purer than this poet's: the latter is never weary of extolling his 'sermonis castitas', his 'lactea ubertas' and the like. It is in the style and structure of his language that this purity is observable: in single words he has by no means obeyed the emphatic adjuration of his great contemporary to shun like a rock a new and unusual term; but has taken a poet's privilege to coin hundreds of new words which have been pointed out where they occur and to introduce not a few from the Greek. And here will be the place to make some remarks on the poet's own complaint of the poverty of his native tongue. We may first assert as an indisputable fact that in his day the living Latin for all the higher forms of composition both prose and verse was a far nobler language than the living Greek. Let not what is said be misunderstood. During the long period of Grecian preeminence and literary glory, from Homer to Demosthenes, all the manifold forms of poetry and prose which were invented one after the other, were brought to such an exquisite perfection, that their beauty of form and grace of language were never afterwards rivalled by Latins or any other people. But hardly had Demosthenes and Aristotle ceased to live, when that Attic which had been gradually formed into such a noble instrument of thought in the hands of Aristophanes Euripides Plato and the orators and had superseded for general use all the other dialects, became at the same time the language of the civilised world and was stricken with a mortal decay. It seems to have been too subtle and delicate for any but its wonderful creators. The Alexandrine poets who imitated earlier styles, and even the graceful Theocritus repeat parrot-like forms which they do not understand, because their meaning had been lost for centuries. If what is said of a Theocritus be thought presumptuous, there is no question that it is true of prose writers. Epicurus who was born in the same year as Menander writes a harsh jargon that does not deserve to be called a style; and others, of whose writings anything is left entire or in fragments, historians and philosophers alike, Polybius Chrysippus Philodemus, are little if at all better. When Cicero deigns to translate any of their sentences, see what grace and life he instils into their clumsily expressed thoughts! how satisfying to the ear and taste are the periods of Livy when he is putting into Latin the heavy and uncouth clauses of Polybius! This may explain what Cicero means, when at one time he gives to Greek the preference over Latin, at another to Latin over Greek: in reading Sophocles or Plato he would acknowledge

their unrivalled excellence; in translating Panaetius or Philodemus he would feel his own immeasurable superiority.

In three places Lucretius complains of the poverty of his native tongue: I 136 he says in general terms that he is aware how difficult it is to express in Latin verses the abstruse discoveries of the Greeks. But could a Greek poet express them in Greek verses? could a Homer or even a Euripides expound the theories of Aristotle or Chrysippus or Epicurus more clearly than Lucretius? Surely not: in the second book he has translated some anapaests of Euripides that consummate master of matured Attic, and there is no thought in them which he cannot express literally. Certainly in difficult questions Empedocles is more helpless than Lucretius, though he had an epic diction to imitate which had existed for centuries. The second passage is I 830 foll. where he observes that the poverty of his native speech does not permit him to express in Latin Anaxagoras' homoeomeria, but the meaning he can expound easily enough. And easily and lucidly enough he does explain it: the less he or any other poet Latin or Greek or English has to do with the word itself the better: it is not more poetical than entelechia or homoeusia, or the τὸ τί ἦν εἶναι itself. The third passage is III 218 foll. where he says that he would fain explain at greater length the way in which the different substances which compose the soul are mixed and work together, but the poverty of his native speech compels him to be brief. Whether he is brief or not, he explains an intricate question as clearly as any Greek writer in prose or verse would be likely to do. One might more justly object to Lucretius that he has too much instead of too little technical language for a poet. Whatever Greek writer Cicero wishes to explain, he can find adequate Latin terms to express the Greek, even if they are those of Plato or Aristotle: is it a new sense given to a word in common use? he can always meet λόγος or εἶδος with *ratio* or *species*: is it a newly coined word? his *qualitas* is quite as good as Plato's ποιότης. Nay from the force of circumstances *species qualitas quantitas* have had a much longer life and a far more extended application than εἶδος ποιότης and ποσότης. Had Cicero chosen to apply the prolific energy of his intellect to the task, he might have invented and wedded to beautiful language as copious a terminology as was afterwards devised by the united efforts of Tertullian and the other fathers, Aquinas and the other schoolmen; from which the most cultivated modern languages derive the chief portion of that wealth in scientific terms which enables them to claim in that respect a superiority over Latin. But the language of Latin poetry would assuredly not have been improved thereby. That however he, like Cicero, sometimes entertained a more favourable opinion of his language and his art would appear from such expressions as the twice recurring *quod obscura de re tam lucida pango Carmina, musaeo contingens cuncta lepore.*

The Lucretian hexameter occupies an important place in the history of Latin poetry, coming as it does between that of Ennius who invented and that of Virgil who brought this metre to perfection. What Ennius did in this matter is a curious study: he not only was the first to introduce this new and strange form of verse into the language on which it was to continue to exercise so great an influence ever after; but he laid down for it laws of prosody differing in many essential points from those observed by himself in his tragedies as well as by all the other tragic and comic poets of his own and the following age. These laws, transmitted from one generation to another, taught as a necessary part of a liberal education and enforced on the writers of elegiac and lyrical as well as of heroic verse, had no doubt a large share in fixing for many centuries the outward form and inner nature of the language, the tendency of which, as of its cognate dialects Oscan Umbrian and the like, was towards rapid change; though perhaps in the end they caused it to come down with a heavier crash, when at last the gulf between it and the debased and degraded speech of the people became too immense. The history of Attic and vulgar Greek is very similar. Complete however as Ennius' system of quantity was, quite as complete as that of Virgil, his rhythm from the nature of the case was somewhat rude and uncouth; he attempted to imitate the Greek structure of verse in points where there appeared to be a natural incompatibility between it and the Latin. There is not evidence to shew by what steps this rhythm was gradually improved, until at length in the hands of Virgil it attained that elaborate and complicated yet exquisite perfection, which is utterly different from the Homeric movement, and yet appears as well adapted to the Latin forms of speech as the other is to the Ionic. We have however sufficient proof that Lucretius gave to the form of his verse as well as to his language an antique colouring, as if he wished in this respect too to break with his contemporaries and approach to the manner of Ennius. He is however a far more finished master of versification than Ennius, and his most striking violations of the laws of construction habitually observed by his contemporaries or immediate predecessors often produce very fine and harmonious effects. That he is more archaic in these respects than his age may be proved not only by a comparison between him and Catullus, but by taking note of the laws of metre observed by Cicero in his youthful hexameters, which he must therefore have learnt from his teachers. Let us examine briefly some of the leading differences between the verse of Lucretius and that of Virgil and certain other authors. In the Latin and Greek hexameter alike the rhythm mainly depends on the caesura. The due observance of this caesura together with a manifold variety in the flow of the verse forms the great charm both of the Greek and the Latin heroic; and examples of its violation are exceedingly rare in Homer Lucretius and Virgil

alike. But other rules observed with equal care by Virgil and Catullus are repeatedly and intentionally neglected by Lucretius. Thus we find in him hundreds of instances in which the first two feet are marked off from the rest of the verse in the following unusual modes taken at random from his six books: with two dactyls at the beginning *Religionibus atque minis, Omnia denique sancta, Suscipiendaque curarit, Quippe patentia cum, Vertice Palladis ad templum*: with a spondee and dactyl *Ergo vivida vis, At primordia gignundis, Praetermittere et humanis, Aut extrinsecus ut*: more rarely a dactyl and spondee or two spondees, but then a monosyllable must follow, *Sive voluptas est, Non temere ulla vi; Inmortali sunt, Nam cum multo sunt, Vis est, quarum nos*: once indeed with great boldness, but with singularly happy effect, III 527 *Et membratim vitalem deperdere sensum.* Instances of such rhythms in Virgil may be counted on the fingers: he has *Scilicet omnibus est labor inpendendus, Armentarius Afer, Sed tu desine velle, Spargens umida mella*, probably in imitation of Lucretius; and *Per conubia nostra* after Catullus' *Sed conubia laeta*, with him too a mere exceptional rhythm for a peculiar effect. In Cicero's early work the Aratea similar instances are found, *Verum tempora sunt, Inclinatior atque*; but they are rarer than in Lucretius: in the 80 or 90 verses still remaining of his poem de consulatu suo written about five years before the death of our poet there is not a single example. In the middle of the verse too Lucretius has many favourite movements, most of which are not unexampled in Virgil Catullus or Cicero but are much less common, such as *Quid nequeat finita potestas, Detulit ex Helicone perenni, Amnibus inveniuntur aperto, Finita variare figurarum ratione, Omne genus perfusa coloribus, Pocula crebra unguenta*, and a hundred such. Cicero has some pretty verses in his prognostica which suggest the manner of Lucretius, *Vos quoque signa videtis, aquai dulcis alumnae, Cum clamore paratis inanis fundere voces, Absurdoque sono fontis et stagna cietis...vocibus instat, Vocibus instat et adsiduas iacit ore querellas*: the latter passage Lucretius v 298 has manifestly imitated. In the fifth and sixth feet of the verse too, so important for the rhythm, the manner of Lucretius is much more like that of Ennius and, in some points, of the Greeks, than that of Virgil or Catullus or even Cicero: he delights to close the verse with such words as *principiorum materiai simplicitate*, or *vis animai, saecla animantum, mente animoque*, and does not even avoid such harsh elisions as *quandoquidem extat, perpetuo aevo, praeterea usquam.* Now in Virgil such endings as *quadrupedantum ancipitemque*, and in Catullus such a one as *egredientem* are exceedingly uncommon. But these poets make one striking exception in favour of Greek words and delight to close a verse with *hymenaeus Deiopea Thersilochumque* and the like: a concession to Greek rhythm and a prettiness which Lucretius would not care for. As for the other rhythms just mentioned, Virgil says

magnam cui mentem animumque and *simul hoc animo hauri*, in acknowledgment probably of his obligations to Lucretius: they produce a striking effect in the Aeneid from their extreme rarity: Lucretius again does not decline spondaic endings as *naturai, aeternumque, et mortalis, sint in motu*; once even *inventi sint*; but these are much rarer than such endings as *principiorum*, and it is worthy of note that he abstains from them altogether in the sixth book. On the contrary Catullus and Virgil use them much more frequently than *quadrupedantum egredientem* and the like: Catullus luxuriates in movements like these *Nereides admirantes, ac moenia Larisaea, fluctus salis alludebant*, and Virgil and Ovid often affect such terminations to a line as *Iovis incrementum, Phrygia agmina circumspexit*; but more in Greek than in Latin words. This however is no concession to ancient practice, but a modern prettiness introduced by the school of Alexandrine imitators mentioned above: see Cicero ad Att. VII 2 1 *ita belle nobis* Flavit ab Epiro lenissimus onchesmites. *hunc σπονδειάζοντα si cui voles τῶν νεωτέρων pro tuo vendita.* Was it scorn of such affectation that made Lucretius altogether avoid such σπονδειάζοντες in his last book? Other forms of spondaic endings, borrowed from the Greek and mostly applied to Greek words, are not uncommon in Catullus Virgil and Ovid. They need not be mentioned here, as they generally have something of learned artifice and recondite elegance about them, quite alien to the nature of Lucretius. He never puts more than two spondees together at the end of the line, while the other three do not reject such rhythms as *Nereidum matri et Neptuno Aegaeo* after the manner of the Greeks. Lucretius does not avoid sometimes very harsh and prosaic endings such as *constare: id ita esse.* When Virgil has such terminations of a verse as *procumbit humi bos*, it is done for effect; Lucretius employs them sometimes for a purpose, oftener without any. He is especially fond of elisions after the fourth foot like these, *perdelirum esse videtur, permutato ordine solo, minus oblato acriter ictu, nisi concilio ante coacto*: in elisions generally he is sometimes less, sometimes more violent than Virgil. One other point is worth observing: Lucretius loves to have the fourth foot wholly contained in one word and ending with that word: in the first 43 verses of his poem, a highly elaborated passage, more than half the number have movements like these, *quae terras frugiferentis*, not *terras quae*; *exortum lumina solis, tibi suavis daedala tellus*, not *suavis tibi*; *tibi rident aequora ponti, diffuso lumine caelum, genitabilis aura favoni* and so on. This produces a grand and stately, but somewhat monotonous effect. Catullus however carries it as far or even farther than Lucretius. Virgil, though he often uses this flow and with much effect, avoids it as a rule: he says *Troiae qui primus*, not *qui Troiae*; *labentem caelo quae ducitis annum*, not *quae caelo*, as Lucretius would have done. It must not be questioned that in the construction of single verses and still more

in the rhythmical movement which he impresses on a whole passage Lucretius is a far less careful and skilled artist than Virgil. The effect which his grandest passages produce is owing more to the vigour and originality of the thought and the force and freshness of the expression than to studied polish and elaboration.

One of the most marked peculiarities of the old Latin writers is their extreme fondness for alliteration, assonance, repetition of the same or similar words syllables and sounds, often brought together and combined in the most complex fashion. In Latin, as in some other languages, this usage was clearly transmitted from most ancient times, and is not the invention of any one writer. Ennius and the serious poets use it to produce a poetical effect; Plautus and the comic poets employ it for comic purposes: the following from the captivi, *Quanta pernis pestis veniet, quanta labes larido, Quanta sumini apsumedo, quanta callo calamitas, Quanta laniis lassitudo, quanta porcinariis*, will furnish a good example. Cicero does not despise such artifices even in prose; but none scatters them about more prodigally than Lucretius both singly and in manifold combination: they are to be counted in his poem by hundreds, nay thousands, and many are noted in different parts of our commentary. His alliterations comprise almost every letter of the alphabet: the more effective letters such as *m p v* pronounced *w* are often used with striking effect. The last sometimes expresses pity as its sound well fits it to do: *Viva videns vivo sepeliri viscera busto*: comp. Virgil's *Neu patriae validas in viscera vertite vires*; and Cicero's *vivus, ut aiunt, est et videns cum victu ac vestitu suo publicatus*: or force or violence, because the words indicating such effects begin many of them with the letter: *virida vis pervicit, venti vis verberat, ventorum validis viribus, Vel violenta viri vis, quid volnera vellent*: comp. Virgil's *Fit via vi*, Livy's *vi viam faciunt*, Lucilius' *Vis est vita, vides, vis* cet.; Ennius' *vidi Priamo vi vitam evitari*; for effects of living shunning and the like are expressed by it in Lucretius also. Often various letters are used in combination: the following is a good instance of *m p* and *v*: *parare Non potuit, pedibus qui pontum per vada possent Transire et magnos manibus divellere montis Multaque vivendo vitalia vincere saecla*: comp. Ennius' *Marsa manus, Paeligna cohors, Vestina virum vis.* Such combinations are common in Virgil; but occur by hundreds in Lucretius. Then he delights in bringing together words compounded of the same preposition by themselves or in union with other sorts of alliteration or assonance: *officium...officere atque obstare, seiungi seque gregari, disturbans dissoluensque, retroque repulsa reverti, condenso conciliatu, Exos et exanguis, pertusum congesta quasi in vas Commoda perfluxere atque ingrata interiere*: comp. Virgil's *Insontem infando indicio* and the like. Then he loves to bring together the same or like-sounding words or examples of oxymoron in conjunction with other alliterations and assonances or by themselves: *omnes omnia*,

omnibus omnino; *tempore in omni omnibus ornatum rebus*; again and again *Multa modis multis multarum rerum*; *pueri circum puerum*; *Nil sint ad summam summai totius omnem*; *Tactus enim tactus*; *aurea dicta, Aurea*; *sonitu sonanti, penitus penetrare, funditus fundamenti*; *casta inceste, Innumerabilem enim numerum, Innumero numero, Immortalia mortali, Mortalem vitam mors cum inmortalis ademit*; *tempore iniquo aequo animo*: cet. cet. Virgil's fondness for similar artifices is probably in great measure derived from Lucretius. After Virgil's time they appear to be less frequent in Latin literature: people probably got tired of them, as has happened in other literatures. This love of assonance in all its shapes our poet indulges to such an extent, that his ear and taste appear not unfrequently to have become blunted by satiety: often within the compass of two or three lines he will use some of his favourite words, such as *res ratio* or *corpora*, three or four or five times, without there being any point or force whatever in their repetition. The most glaring examples are pointed out in their places. Many other modes of producing effect might be noted in Lucretius, such as his habit of putting together substantives without any copula: *Prata lacus rivos segetes*; *Ossa cruor venae calor umor viscera nervi*; *Aera solem ignem terras animalia frugis*; *varios conexus pondera plagas Concursus motus*; *Concursus motus ordo positura figurae*; *Volneribus clamore fuga terrore tumultu*: but let the examples given suffice. In his alliterations and assonances as well as in the rhythmical movements of his verse and the style and colour generally which he imparts to his poem Lucretius seeks rather for the most direct and obvious means of producing effect, than for the more subtle and recondite arts of Virgil. His ornament therefore is apt sometimes to be in excess, sometimes to be deficient; yet even the plainest and most prosaic parts of his poem shew a sincerity of thought, a force of reasoning and a racy idiomatic flavour of style which render them less dull and uninteresting than the flatter portions of many more carefully elaborated works.

Another point of resemblance between Lucretius and the older writers must not be passed over unnoticed. The language seems once to have claimed for itself, and with good reason, the same right of forming compound words, as the Greek always retained. Thus in Lucretius alone there are forty or fifty compounds like *terriloquus horrisonus* or *terrigena Troiugena* cet., many of them ἅπαξ λεγόμενα, such as *silvifragus fluctifragus*. Now these words are just as regularly and organically formed as any in Greek: *primigenus* seems as legitimate as πρωτόγονος, *terrigena* as γηγενής. But by one of those mysterious laws of language which have to be observed and not reasoned about, the classical language soon began to limit this right of forming compounds, and Lucretius in this respect too must be pronounced decidedly archaic. Virgil is already much more niggardly in his use of compound words; and the tendency

of the language was more and more to discard them, until barbarous writers like Tertullian forced it back in the opposite direction. Lucretius in VI 129 uses *perterricrepus*: this word Cicero in one of his latest works the orator, 164, quotes from an old poet and condemns for 'asperitas', as well as *versutiloquus*. Now these two adjectives are formed quite regularly; and so are the *repandirostrum incurvicervicum* of Pacuvius; but Quintilian, who in his instit. I 6 65—70 states the limits within which the Latin of his day might form compounds, observes 'cum κυρταύχενα mirati sumus, *incurvicervicum* vix a risu defendimus'. See also Livy quoted in n. to V 839. The right of forming compound nouns and verbs by prefixing the different prepositions always remained in full force; and no one having his attention called to this point can read a page of Cicero or Livy without feeling what an influence over style and expression this usage of the language exercised, an influence almost equally apparent in any page of an English or French writer.

Standing as Lucretius did entirely aloof from what would most excite the sympathies of his contemporaries, there is not much evidence to shew what reception his poem met with from the great mass of his countrymen. It sufficiently appears however that he and Catullus were justly esteemed the two greatest poets of their age. Yet there can be no doubt that his work came into the world at a time very unfavourable for the fame of its author. He would take no part in the great movement then in active progress which ended in producing the works of Virgil Horace and Ovid and fixed once and for ever the Roman standard of poetical taste. The splendour of their reputation threw into the shade that of their greatest predecessors, Ennius Lucretius and even Catullus: they obtained the unanimous suffrages of the best critics of the empire, at the head of whom stood Quintilian. The reaction in favour of the older literature seems to have been headed by unskilful and too zealous leaders and thus to have exposed itself to the shafts of satire. The effect which Dryden and Pope produced for some generations on English poetry gives but a faint notion of the sovereignty exercised by the Augustan poets. And yet Lucretius had no slight influence on the poetry of succeeding ages, although the first mention of his verses according to the interpretation usually given is anything but complimentary. I refer of course to a sentence of Cicero written a few months after the poet's death and probably at the very time when his poem was first published. At the end of a short letter to his brother Quintus, II 11, written early in 700, occurs this sentence as it is given in all mss. *Lucretii poemata ut scribis ita sunt multis luminibus ingenii multae tamen artis.* Nearly all editors are now agreed in writing *ita sunt, non multis* cet.; but sense alone must determine the right reading: to put *non* before *multae tamen artis* is quite as easy an emendation. What then is

Cicero's meaning? we have not the criticism of Quintus which called forth the remark to enlighten us. At this period when the νεώτεροι, as Cicero calls them, were striving to bring the Alexandrine style into fashion, there seems to have been almost a formal antithesis between the rude genius of Ennius and the modern art. It is not then impossible that Quintus may so have expressed himself on this head, that Cicero may mean to answer 'yes, you are quite right in saying that Lucretius has not only much of the native genius of Ennius, but also much of that art which to judge by most of the poets of the day might seem incompatible with it'. Thus the mss. would be right and Cicero's judgment would satisfy us. Again to write either *multae tamen etiam artis* or *multae etiam artis* is hardly, if at all a greater change than to insert *non.* Lachmann however has no doubt that *non* must come before *multis*: he says Cicero could not deny to Lucretius art: 'quod in Marco sane mirandum esset, quippe qui eius artis qua Lucretius pollet ne minimam quidem partem in carminibus suis adsecutus esset. contra idem cur pauca *ingenii lumina* in Lucretii carmine animadverterit, non potest obscurum esse: nam ei Ennius et Attius ea re *ingeniosi* videbantur, quod oblectando docerent et animis movendis corrigerent mores'. But every one feels that *ingenii lumina* means here precisely what we mean by genius; what Ovid means when he says of Ennius *Ennius ingenio maximus, arte rudis*, of Callimachus *Quamvis ingenio non valet, arte valet*, of himself broken by calamity *Nec tamen ingenium nobis respondet, ut ante...Impetus ille sacer qui vatum pectora nutrit, Qui prius in nobis esse solebat, abest*; what Horace means by *ingeni benigna vena*; and *Ingenium cui sit, cui mens divinior*; what Juvenal means when he says of Demosthenes and Cicero *utrumque Largus et exundans leto dedit ingenii fons.* As it would not be well then in Cicero to deny Lucretius *ingenium*, if we must have a *non*, I should prefer to see it before *multae.* Why Cicero should deny him art, may be explained in more ways than one: he had a genuine love of Ennius and is indignant that the 'cantores Euphorionis' should presume to despise him: he and Lucretius agreed on taking him for their great poetical model. At the same time his own Aratea must have been written thirty years or more before this letter, and he may well have been so far converted by the almost unanimous tendency of the poets of the day towards that style of diction and verse which was gradually leading up to the works of Virgil and Horace, as to deny Ennius and Lucretius much art. In that early work for instance Cicero suppresses the final *s* of short syllables just as freely as Lucretius does: in his orator written two or three years before his death he says of this licence 'iam subrusticum videtur, olim autem politius'. What remains of their poetry, proves that both Augustus and Maecenas had formed their style rather in the school of Catullus and Calvus than of Virgil and Horace; yet doubtless they would have rated the art of the

latter more highly than that of the former. Or Quintus may have dwelt on Lucretius' philosophical qualities; and Cicero who is continually jeering at Epicurus for his want of art and scientific discipline, may possibly include Lucretius in the same condemnation. However that may be, if Cicero did deny him *ingenium*, then did the great Roman orator display less taste than the orator and philosopher of Arles Favorinus two centuries later when, as Gellius I 21 records, he spoke of Lucretius as *poetae ingenio et facundia praecellentis*.—But I cannot help suggesting, what I have long suspected, that the corruption does not lie in the words cited above, but in those which follow. The short letter thus concludes according to the mss.: Lucretii poemata ut scribis ita sunt multis luminibus ingenii multae tamen artis sed cum veneris virum te putabo si Salustii Empedoclea legeris hominem non putabo. The sentence seems to me clearly to require something to be joined with *virum te putabo*, in order to contrast with *si Salustii* cet.: this now would be a very easy correction, Lucretii poemata, ut scribis, ita sunt, multis luminibus ingenii: multae tamen artis *es*se cum *in*veneris, virum te putabo; si Salustii Empedoclea legeris, hominem non putabo: it is manifest how easily the *es* of *esse* might be absorbed in the *is* of *artis*; the *in* of *inveneris* in the *m* of *cum*. Marcus would then mean to say: on a first perusal you have rightly seen that there is much genius in the poem of Lucretius. If when you have had time to study him, you discover much of art as well, I shall think you a right worthy man; if you can get to the end of Sallust's Empedoclea, I shall not think you a human being at all. This would give the proper antithesis between *vir* and *homo*; and would strengthen the probability that Marcus was editor. Bergk conjectures that some words have fallen out and that we are to read: Lucretii poemata ut scribis ita sunt: multis luminibus ingenii, *non* multae tamen artis. sed *si ad umbili*cum veneris, virum te putabo; si cet. This has found favour with many; but I cannot approve of it. Whichever of the two was editor, it would have been preposterous in the one to address the other in this way; and how could Quintus have written in such terms without having read the poem, a poem after all of 7000 verses?

Catullus, though it was published so short a time, scarcely a year perhaps, before his death must I think have known it, when he wrote his marriage of Peleus and Thetis, as he has there imitated it in more places than one; from which I infer that this poem of Catullus was one of his latest: on this point compare the passages brought together in the note to III 57. When the nature of things was published, Virgil was fifteen years of age. At such an age therefore the style and manner of Lucretius were able to impress themselves fully on the younger poet's susceptible mind; and perhaps the highest eulogy which has ever been passed on the former is that constant imitation of his language and thought which pervades Virgil's works from one end to the other.

Horace too and Ovid had carefully studied him: this commentary will in some degree shew what they as well as Manilius owe to him, though this last disciple is not worth much. Lucretius thus exercised indirectly no slight influence on the whole future career of Latin poetry. To pass to modern times, the Italian scholars of the fifteenth century, full of enthusiasm for everything classical, yet admired no Latin poet more than Lucretius, Virgil alone excepted. The illustrious French scholars of the sixteenth century, Lambinus Turnebus Scaliger, pronounced him one of the greatest, if not the greatest of Roman poets. In the seventeenth, the century of English erudition, he was of course well known to Milton and has been often imitated by him in the Paradise Lost: he had the fortune too to be entirely translated by one of the most accomplished cavalier gentlemen and by the most accomplished of puritan ladies before Dryden and Creech turned their thoughts to the same task. In more recent times he has been perhaps less praised and read; yet in France he has never been without enthusiastic admirers: it will be enough to specify Voltaire in the last century; Villemain, Sainte-Beuve and Martha in the present. Among Germans Goethe never failed in sympathy and admiration for Lucretius. In this country the most recent account of the philosophy and poetry of Lucretius is at the same time the fullest and most favourable and by far the best: I speak of that given by Professor Sellar in the Roman poets of the republic.

BOOK I

1—43: the poet calls upon Venus, as mother of the Romans, author of their being to all living creatures and sole mistress of nature, to help him in writing on that theme; but first to constrain her lover Mars, the lord of war, to grant peace to the Romans in order that he himself might have ease of mind to write, and his friend Memmius leisure to read what he wrote.

1 *Aen. genetrix*: her peculiar relation to the children of Aeneas is placed in vivid contrast with that which she bears to the whole of animate and inanimate nature. Lucr. may have had in his mind Ennius ann. 53 *Venus et genetrix patris nostri.* Ovid without doubt refers to Lucr. both in trist. II 261 *Sumpserit, Aeneadum genetrix ubi prima: requiret, Aeneadum genetrix unde sit alma Venus*, and fasti IV 90 foll. where the whole of our passage is brought under contribution: comp. too Auson. epigr. 33 *Aeneadum genetrix hic habito alma Venus*, [and Ephem. Epigraph. vol. II p. 265 (in a poetical dedication to Venus Erycina by Apronius filius) *Aeneadum alma parens.*] *genetrix*

AB rightly: so all the best mss. of Virgil and others, and certainly most inscriptions of the best ages: some of those which have *genitrix* are now declared spurious; some I doubt not have been wrongly copied. *Aeneadum genetrix* is scribbled on the outer wall of the basilica of Pompeii: corp. inscr. IV 3072. Lamb. compares *meretrix meritus* with *genetrix genitus*: Lach. adds *genetivus* and *obstetrix institor*, and attributes the *e* to the following long *i*. It may be said that *meretrix* is from a verb of the 2nd conj. and that *mereto* is repeatedly found in old inscriptions; that *meritus* therefore, not *meretrix*, has changed its vowel; that *obstetrix* too is intermediate between *stator* and *institor*: comp. *recĕpit accĕdere* and the like. This is true: but authority calls imperiously for *genetrix*, and *genetus genetor* may once have been in use: see the index of the new corpus inscr. Lat. vol. I for numerous cases of *e* for *i* in the old language. *hom. div. vol.*: VI 94 *Calliope, requies hominum divomque voluptas.*

2 *Alma*, an epithet he applies elsewhere to water, the earth, a nurse, pleasure, Pallas; but here it has manifestly a peculiar force with reference to all that follows in this fine address in which no word is thrown away. *alma Venus* was not only familiar to poets, but seems to have passed into the language of the people. I find on the basis Capitolina reg. XII an *almae Veneris vicus*; and the cosmographia Aethici p. 716 ed. A. Gronovius says of the island between Portus and Ostia *ita autem vernali tempore rosa vel ceteris floribus adimpletur ut prae nimietate sui odoris et floris insula ipsa libanus almae Veneris nuncupeter.* Macrob. sat. III 8 3 *Laevius etiam sic ait* Venerem igitur almum adorans, Seu femina isve mas est, Ita ut alma Noctiluca est. Plautus rudens 694 has *Venus alma*; Apul. metam. IV 30 the goddess in wrath says of herself *en rerum naturae prisca parens, en elementorum origo initialis, en orbis totius alma Venus.* Empedocles termed her ζείδωρος: see Plutarch amat. p. 756 E.

2 3 and 6—9: thus early the poet calls attention to the three great divisions of the world, to which he as well as other writers before and after him so constantly revert that the thing passed into a common proverb: *mare terra caelum di vostram fidem*, says Plaut. trin. 1070; *Ita mihi videntur omnia, mare terra caelum, consequi Iam ut opprimar*, Amph. 1055; *ut nulla pars caelo mari terra, ut poetice loquar, praetermissa sit*, says Cic. de fin. V 9. Ovid fasti IV 93 thus imitates Lucr. *Iuraque dat caelo terrae natalibus undis Perque suos initus continet omne genus.* Bentl. points out that Lucr. has himself imitated Eurip. Hipp. 449 φοιτᾷ δ' ἀν' αἰθέρ', ἔστι δ' ἐν θαλασσίῳ κλύδωνι Κύπρις, πάντα δ' ἐκ ταύτης ἔφυ, and 1261 Ποτᾶται δ' ἐπὶ γαῖαν εὐάχητόν θ' Ἁλμυρὸν ἐπὶ πόντον. Θέλγει δ' Ἔρως, ᾧ μαινομένᾳ κραδίᾳ πτανὸς ἐφορμάσῃ Χρυσοφάης, φύσιν Ὀρεσκόων σκυλάκων Πελαγίων θ' ὅσα τε γᾶ τρέφει, Τὰν ἅλιος αἰθομέναν δέρκεται, Ἄνδρας τε· συμπάντων δὲ Βασιληΐδα τιμάν, Κύπρι, Τῶνδε μόνα

κρατύνεις: the last clause is parallel with 21 *Quae quoniam* etc. But both Eurip. and Lucr. seem indebted to the Homeric hymn IV 1 Ἀφροδίτης Κύπριδος ἥτε θεοῖσιν ἐπὶ γλυκὺν ἵμερον ὦρσε Καί τ' ἐδαμάσσατο φῦλα καταθνητῶν ἀνθρώπων Οἰωνούς τε διιπέτεας καὶ θηρία πάντα Ἠμὲν ὅσ' ἤπειρος πολλὰ τρέφει ἠδ' ὅσα πόντος: the orphic hymn LV 4 follows in the same track, Πάντα γὰρ ἐκ σέθεν ἐστὶν ὑπεζεύξω δέ τε κόσμον· Καὶ κρατέεις τρισσῶν μοιρῶν, γεννᾷς δὲ τὰ πάντα Ὅσσα τ' ἐν οὐρανῷ ἐστὶ καὶ ἐν γαίῃ πολυκάρπῳ Ἐν πόντου τε βυθῷ. 2 *cael. lab. sig.*: Aen. III 515 *Sidera...tacito labentia caelo*; Ovid fasti III 113 *caelo labentia signa. labentia* well describes the smooth easy motion 'ohne Hast doch ohne Rast': so IV 444 *signa videntur Labier adversum nimbos.* Cic. Arat. fragm. 3 said before Lucr. *Cetera labuntur celeri caelestia motu*: Lucr. had attentively studied this translation, as we have said above and shall often have occasion to repeat. 3 *terras*: Lucr. when speaking of the earth as an extended surface or a solid mass uses the plur. of the accus. and abl. oftener than the sing., the gen. not unfrequently, the nomin. and dat. only once each I think, II 1109 and V 630. *frugiferentis* appears to be a ἅπαξ λεγόμενον. 4 *Concelebras* rightly explained by Wak. 'uno tempore frequentas, permeas': its first meaning seems to be that of a multitude filling, crowding a place, as II 344 *variae volucres laetantia quae loca aquarum Concelebrant...Et quae pervolgant nemora avia pervolitantes*, where *Concelebrant* and *pervolgant* might clearly change places: comp. also Cic. de imp. Cn. Pomp. 61 *At eam quoque rem populus Romanus non modo vidit, sed omnium etiam studio visendam et concelebrandam putavit*: the goddess therefore fills at once with her presence, *pervolgat*, earth and sea, and thus performs the part of a multitude: this sense is therefore more poetical than, and also implies, that of peopling. 5 *lumina solis*: in the nom. and acc. the plur. is much oftener used than the sing. by Lucr. to express the φάος ἠελίοιο: it occurs more than once in Ovid. 6 *Te*, after the vocatives and relatives of the first five vss., follows as in Hor. od. I 35 4; Catull. 2 9: but there 7 and 8 should be transposed and we should read *Credo ut, cum gravis acquiescet ardor*, Sit *solaciolum sui doloris.* *te...Adventumque tuum*: 12 *te...tuumque initum*: this form of expression is singularly stately. 7 *daedala* well explained in Paulus Festi p. 68: *daedalam a varietate rerum artificiorumque dictam esse apud Lucretium terram, apud Ennium Minervam, apud Virgilium Circen, facile est intellegere, cum Graece* δαιδάλλειν *significet variare.* Lucr. applies it also to nature and to the tongue, followed by a gen.; and in a pass. sense to poems and to statues. 8 *Summittit* a favourite word of Lucr. in this signification. *rident* here, as II 559 *ridet placidi pellacia ponti* and V 1005 *ridentibus undis*, has simply the sense of *nitet diffuso lumine* in 9, and *rident* in III 22: there seems to be no reference to that plashing ringing ripple so often seen on Greek and Italian seas in spring which

Aeschylus expresses by γέλασμα, and Aristot. probl. XXIII 1 and 24 by ἐπιγελᾶν: that is implied in the *cachinni* and *cachinnat* of Catullus and Accius. 9 *Placatumque*: VI 48 *Ventorum ex ira ut placentur*; so Virg. *tumida aequora placat* and *placataque venti Dant maria*, the opposite of Horace's *iratum mare*.

10 *Nam* cet. a poet's logic: he assumes the sunshine and the spring to follow on the advent of Venus, because when they do come, all living things turn to thoughts of love: *It ver et Venus et Veneris praenuntius ante Pennatus graditur. species verna diei* i.e. *species veris*: comp. 119 *Per gentis Italas hominum*, and n. to I 474; and IV 733 *Cerbereasque canum facies*: it means that aspect of day which belongs to spring: IV 137 *mundi speciem violare serenam.*
11 *reserata*: the *sera* being removed from the door of its prison. Ovid fasti II 453 *et sex reserata diebus Carceris Aeolii ianua laxa patet.* *genitabilis* used this once by Lucr. and with the active sense in which *genitalis* is so often employed by him. Varro de ling. Lat. V 17 *Aetheris et terrae genitabile quaerere tempus*, which is rightly given to Lucilius though the mss. assign it to Lucr.: the word is also used actively by Avienus and Arnobius. VI 805 *mactabilis* is *qui mactat*: so Virg. *penetrabile telum* and *frigus*; Ovid *penetrabile telum* and *fulmen* = quod penetrat, in which sense Lucr. more than once has *penetralis*; in Horace *dissociabilis* = qui dissociat, in Plautus *impetrabilis* = qui impetrat, in Plautus Cicero Livy Ovid Tacitus and Suetonius *exitiabilis* = *exitialis*; in Livy and Tacitus *permitiabilis* = *permitialis*; in Terence *placabilius est* twice = aptius ad placandum, in Persius *reparabilis* = qui reparat, in Ovid *resonabilis* = qui resonat: Val. Flaccus I 782 *exorabile carmen*: comp. in Horace *illacrimabilem Plutona* with *illacrimabiles urgentur. terribilis* = qui terret, *horribilis* = qui horretur. With *gen. aura fav.* comp. Catul. 64 282 *aura tepidi fecunda favoni*, and Pliny nat. hist. XVI 93 *Hic est genitalis spiritus mundi a fovendo dictus, ut quidam existimavere.* 12 *Aeriae*: V 825 *Aeriasque simul volucres*; Manil. I 237 *Aeriaeque colunt volucres*; Calpurn. XI 28 *Et genus aerium volucres. primum*: Virg. geor. II 328 and Ov. fasti IV 99 and Chaucer at beg. of Canterbury tales all make the birds first feel the coming of spring: 'So priketh hem nature in hir corages'. 13 *perculsae* is literally 'knocked down, struck to the ground': see Forcellinus and Bentl. to Hor. epod. 11 2: hence often 'stunned, smitten through all the frame' by a strong passion, as here by love, 261 by the rapture of a gratified craving: comp. Plaut. trin. 242 *Nam qui amat, quod amat, quom extemplo eius saviis perculsus est*, where *perculsus* is restored from the Ambrosian, the other mss. having *percussus*, with which it is so often confused.

14 *ferae pecudes* for *ferae* seems very doubtful: *pecudes* to be sure is often used by the poets for animals generally, by Lucr. and others for

shoals of fish; yet I find in no classical writer *ferae pecudes* for *ferae*; but again and again in Lucr. and others *pecudes* and *ferae* in formal contrast. Wak. misquotes Martial, and besides him only quotes or misquotes such writers as Hilary and Tertullian to support *ferae pec.*: Forbiger refers to Varro de re rust. II 1 5 and Colum. IX 1, passages which make strongly against him: by *pecudes ferae* Varro means tame animals or *pecudes* found in a wild state, viz. sheep goats swine bulls asses horses; Columella goats deer boars, which though wild may yet be kept in herds on an estate. Again *ferae* is awkward, as tame beasts are as much moved as wild: Ovid, fasti IV, where he is imitating Lucr. speaks of tame brutes only; Virg. geor. III 242 foll. of both tame and wild, and it is of mares he says *flumina tranant.* Can *ferae pec.* mean brutes made headstrong by passion? comp. Cat. 61 56 *Tu fero iuveni in manus Floridam ipse puellulam Dedis*: much as Plaut. trin. 750 *adulescenti...Indomito, pleno amoris ac licentiae*: otherwise *fere* seems highly prob. 'generally', 'without exception': so II 370 *Ad sua quisque fere decurrunt ubera lactis*; and 218 *incerto tempore ferme* 'at quite an uncertain time', and III 65 *Turpis enim ferme contemptus* 'without exception', V 242 *Haec eadem ferme mortalia cernimus esse*: comp. Virg. Aen. III 135 *Iamque fere sicco subductae litore puppes*, where I do not understand the doubts of editors: Livy XLI 3 4 *cetera deformis turba... praeda fere futura, si belli hostes meminissent.* Yet Statius silv. I 2 184 makes *alma Venus* say *Alituum pecudumque mihi durique ferarum Non renuere greges* cet. *pab. laeta*: here again, as throughout this address, the epithet is at once poetical and idiomatic: *pab. laet.* occurs 6 or 7 times with *armenta, arbusta, vineta*: thus Virg. *laetas segetes* and the like. But it was also a word of the people: see Cato and Varro in Forcell. and comp. Cic. de orat. III 155 *laetas segetes etiam rustici dicunt*: and orator 81 where he repeats the same: Livy too I 7 4 has *pabulo laeto*, XXIV 3 4 *laeta pascua*; Manil. III 654 imitates Lucr. *Tunc pecudum volucrumque genus per pabula laeta In Venerem partumque ruunt.*

15 *ita capta...Te sequitur...quo quamque ind. per.* = *ita quaeque capta ...Te s. quo*; or *quo quamque ind. per., te sequitur*: such constructions are not uncommon in Lucr.: 170 *Inde enascitur atque oras in luminis exit, Materies ubi inest cuiusque* = quicque enasc....inde ubi eius mat. inest. Not unlike is V 1110 *divisere atque dedere Pro facie cuiusque* = cuique pro facie eius: like in principle are I 152 *Quod multa in terris fieri caeloque tuentur Quorum operum causas nulla ratione videre Possunt*; 289 *ruit, qua quicquid fluctibus obstat*; 695 *Unde hic cognitus est ipsi quem nominat ignem*; III 133 *et in illam Transtulerunt, proprio quae tum res nomine egebat*; VI 313 *ex illa quae tum res excipit ictum*; 896 *scatere illa foras, in stuppam semina quae cum conveniunt* cet.: with these comp. Hor. sat. I 4 2 *Atque alii quorum comoedia prisca virorum est*; 10 16 *Illi, scripta quibus comoedia prisca viris est*; epod. 2 37

malarum quas amor curas habet; [Ovid fasti VI 395, amended by Madv. advers. II p. 108, and Livy there cited by him :] Juv. III 91 *Ille sonat, quo mordetur gallina marito*: again IV 560 *neque illam Internoscere verborum sententia quae sit*; II 1143 *Iure igitur pereunt, cum rarefacta fluendo Sunt et cum externis succumbunt omnia plagis* = omnia pereunt cum cet.; III 391 *Usque adeo prius est in nobis multa ciendum, Quam primordia sentiscant* cet.; 836 *In dubioque fuere utrorum ad regna cadendum Omnibus humanis esset* = In d. fuere humani utrorum cet.; IV 50 *Quoi quasi membranae, vel cortex nominitandast, Quod speciem ac formam similem gerit eius imago*; V 853 *habere* cet. = habere utrumque Mutua qui cet.; VI 266 *Nec tanto possent venientes opprimere imbri... Si non extructis foret alte nubibus aether*: i.e. venientes nubes cet.: 503 *Concipiunt*, i.e. nubila...*Cum supera magnum mare venti nubila portant*; II 91 *neque habere ubi corpora prima Consistant* = habere corpora ubi: quite similar is Ov. trist. III 5 53, causelessly tampered with by editors, *Spes igitur superest facturum ut molliat ipse...poenam* = facturum ipsum ut molliat. IV 387 *Qua vehimur navi fertur* is more usual and like Liv. I 1 3 *ei in quem primum egressi sunt locum, Troia vocatur*: a constr. not uncommon in the best authors: comp. also IV 397 *Exstantisque procul* cet. and n. there; and II 22 foll. and n. there.

17 *Denique*, not in the sense it usually bears in Lucr. as a synonyme of *praeterea*, *porro*, 'again' 'once more', introducing a new argument: here it places the sentence in apposition with what precedes, summing up and serving as a climax to what has been said: yes, in short, to sum up all, you inspire love throughout the world and every portion of the world. Comp. Ov. heroid. I 1 21 *Denique quisquis erat castris iugulatus Achivis*; 4 84 *Denique nostra iuvat lumina quidquid agis.* Terence is fond of this use: comp. eun. 40 *denique Nullum est iam dictum quod non sit dictum prius*; heaut. 69 *denique Nullum remittis tempus neque te respicis*, where Cicero de fin. I 3 inadvertently joins *denique* with what precedes: [I see that Umpfenbach reads Terence as Cicero does, yet surely not rightly. So, I think, Cic. epist. (Caelius) VIII 6 2 *denique invidiosum tibi sit, si emanarit*: 'yes' is the meaning here, but the editors alter the word or note it as corrupt. So too Caes. b. Gall. VII 28 5 *denique ex omni numero*, summing up what precedes exactly as in Lucr.] But in Lucr. himself I 464 *Denique Tyndaridem* cet. and 471 *Denique materies si rerum* cet. the word has much the same force, introducing merely a confirmation of what precedes. Cicero and the best writers often use it with this force in the same sentence with what it sums up, as in the clause four times repeated by Lucr. *finita potestas denique cuique Quanam sit ratione*: here *denique* does not, as it so often does, merely add an item in the enumeration, but defines more fully what precedes. The word means here much what *adeo* does in Virgil's imitation, geor. III 242. *rapacis* is well explained by Ovid met. VIII 550

nec te committe rapacibus undis: Ferre trabes solidas obliquaque volvere magno Murmure saxa solent. vidi contermina ripae Cum gregibus stabula alta trahi: Virgil also applies it to rivers, Seneca to a torrent, Ennius (?) ann. 303, Ovid, Seneca to a sea-current; [comp. also Sen. Thy. 477 Siculi rapax...aestus unda.] 18 Virg. geor. II 209 *Antiquasque domos avium.* 19 *incutiens* more usually applied to fear or some other bad passion; but 924 to love as here: comp. too Hor. epist. I 14 22 *Incutiunt urbis desiderium*; though there perhaps it is satirical: Livy XXIX 22 4 *tantaque admiratio incussa.* 20 *generatim* 'kind by kind': of adverbs in *-tim* or *-sim* generally with this force there are from twenty to thirty in Lucr. Bopp vergl. gram. III 243 points out that they are adverbial accusatives of lost abstract substantives: *tractim* prop. 'with drawing', *cursim* 'with running', *caesim* 'with cutting', *confertim* 'with massing together': see too Corssen Lat. Formenl. p. 281 foll. who enumerates more than 200 of them. *saecla* found in Lucr. only in the contracted form, and used by him some forty times in this sense of races, generations of living creatures, men, wild beasts, even inanimate things, as II 1113: a sense peculiar to him with the exception of a few imitators: he has it perhaps only once, III 1090, or at most 3 times, see I 202 and III 948, in its ordinary meaning; and those 3 cases may be looked upon as almost the same phrase. *propagent* a very expressive metaphor recurring not unfrequently.

21 *rer. nat.*: see n. to 25. 22 23 *quicquam* so AB always with the best mss. and inscriptions: also *quicque* and *quicquid* in the sense of *quicque*; but usually *quidquid* as a relative: see Lach. to V 264. *dias*: can Lucr. by this word mean either 'bright' or 'open' according to all its analogies in Latin Greek and as we are told Sanscrit? Pontanus ap. Victor says 'dias i. lucidas'. Lucr. uses the word only twice after this, II 172 *dia voluptas* and V 1387 *pastorum...otia dia*: in the former place the meaning 'bright' would be suitable; in the latter that of 'in the open air': comp. Varro de ling. Lat. V 66 'hoc idem magis ostendit antiquius Iovis nomen; nam olim Diovis et Dispiter dictus, id est dies pater. a quo dei dicti qui inde, et dies et divum. unde sub divo dius Fidius', and so on: also VII 34 he quotes from Pacuvius (?) *Caelitum camilla, expectata advenis, salve hospita,* and after explaining *camillus* and *camilla* continues 'hinc casmilus nominatur Samothrece mysteriis *dius* quidam administer dis magnis': then too surely the name of the mysterious *dea dia,* who had her attendant *camilli,* whether she were *Tellus, Ceres, Ops, Flora, Fauna* or *Diana,* or all or none, had some connexion with the bright open air; so also that of *Diana.* Virgil uses the word only once, XI 657 *dia Camilla,* who 543 is also *Casmilla* and consecrated to Diana. *luminis oras,* a favourite phrase by which he seems to denote the line or border which divides light from darkness, being from non-being; for he almost always uses *orae* in its proper sense, that

of an edge or coast or limiting line. The phrase is found twice in the annals of Ennius; twice in Virgil, once in Valerius Flaccus, [and in Arnob. II 69 *oras contingeret luminis*]: Lucr. has also *aetheris, terrarum, Acheruntis oras.* 24 *scribendis versibus* are of course datives: comp. geor. I 3 *habendo pecori*, and see Madvig emend. Liv. to IX 9 where he properly reads *vilia haec capita luendae sponsioni feramus*: 'dativo gerundivi in consilio significando admodum libere Livius utitur, ut I 24 *me gerendo bello ducem creavere*, III 5 *his avertendis terroribus in triduum feriae indictae*, IX 26 14 *dictatorem deligere exercendis quaestionibus*, et id genus alia': comp. too IV 43 10 *non ducem scribendo exercitui esse.*

25 *de rerum natura*: this title he doubtless gave to his poem in imitation of Epicurus' great work περὶ φύσεως in 37 books, of which some miserable and ill-deciphered fragments are published in the volumina Herculanensia. The same title was given by Empedocles to his chief poem in 3 books, which must in some degree have served Lucr. for a model. [Thus Galen says de elem. sec. Hipp. I 9 τὰ γὰρ τῶν παλαιῶν ἅπαντα περὶ φύσεως ἐπιγέγραπται, τὰ Μελίσσου, τὰ Παρμενίδου, τὰ Ἐμπεδοκλέους, Ἀλκμαίωνός τε καὶ Γοργίου καὶ Προδίκου καὶ τῶν ἄλλων ἁπάντων.] Macrobius sat. VI 5, § 2 and § 12, twice quotes Egnatius de rerum natura: he preceded Virgil who imitates him, and can scarcely have been later than Lucr. as he elides the final *s*. What he means by *rerum natura* will sufficiently appear in the course of the poem: they are two of four words, *corpus* and *ratio* being the other two, which occur with such curious frequency. Perhaps every one of the many meanings which *natura* has in Cicero or *nature* in English is found in Lucr. Sometimes it is an active force or agency, sometimes an inert mass; sometimes an abstract term; sometimes, as I 419, it seems synonymous with the *omne*. *Res* has with him many abstract meanings; but as a physical term it signifies composite things in being in contradistinction to the *primordia* or *corpora prima* out of which things are made: I 420, 449, 504 are apparent rather than real exceptions: *natura rerum* is therefore coextensive with the *summa rerum*, comprehending the infinity of worlds in being throughout the *omne*, and denoting sometimes this *summa* itself, sometimes that universally pervading agency by which the *summa* goes on. IV 385 *naturam noscere rerum* = causas cognoscere rerum, *natura* often meaning the inner nature and essence of things. '*pangere* figere, unde plantae *pangi* dicuntur, cum in terram demittuntur; inde etiam versus *pangi* vel *figi* in cera dicuntur' Paulus Festi p. 212: comp. Colum. X 251 *ceu littera...Pangitur in cera docti mucrone magistri*: but Cicero, ad Att. II 6 2, 14 2, uses the word in speaking of his own prose. 26 *Memmiadae* a hybrid word formed on the analogy of, though more regularly than *Scipiadas*, which latter word Lucr. Virgil and Horace have all borrowed from Lucilius, unless Ennius employed it

before him: *Tuscolidarum* and *Apulidae* are found in Lucilius, and *Luciliadas* (?): *Romulidae* is common enough: L. Mueller de re metr. p. 389 gives a list of seven such formations from late writers: and he observes that *Daunias* in Horace and *Appias* in Ovid are not dissimilar. 27 Od. δ 725 Παντοίῃς ἀρετῇσι κεκασμένον ἐν Δαναοῖσι: Cic. epist. III 10 10 *quibus ille me rebus non ornatum voluit amplissime ?*, and pro Cornel. frag. 2 *Q. Metelli adulescentia ad summam laudem omnibus rebus ornata*: *excellere* being much the same as *ad summam laudem*; de imp. Cn. Pomp. 20 *maximas Mithridatis copias omnibus rebus ornatas atque instructas fuisse.*

29 and 32 *moenera*: this antique form Lucr. uses three times, as well as *moerorum* twice, and *poeniceus* and *poenibat*: see also n. to II 830 *poeniceus*. *moen. mil.* and *belli moen.*: V 1308 *in munere belli*. *militiai*: Lucr. employs this old form of the gen. very often in the case of substantives, more rarely in that of adjectives: see n. to II 52: a dat. in *-ai* is quite unknown to him. 30 *sopita*: Paterc. II 89 *sopitus ubique armorum furor*; 125 *haec omnia...sopiit ac sustulit.* 31 *tranq. pace*: even in prose, Livy XXVI 26 11 *qui vel in pace tranquilla bellum excitare possent.* 32 *Mav. Arm.*: Aen. IX 717 *Mars armipotens.* 33 *in gr. se Rei.*: Ter. Andr. 135 *Tum illa, ut consuetum facile amorem cerneres, Reiecit se in eum.* 34 *Reicit* or *reiĕcit*, never *reiicit*; and so of the other compounds of *iacio*: these are the only spellings known in the best ages. *aet. dev. vuln. am.*: V 1321 *volnere victos* literally: Virg. Aen. VIII 394 varies the phrase: *aeterno fatur devinctus amore*. *vulnus* and cognate metaphors are frequently applied to love in IV. 35 *Atque ita susp.*: Ov. met. III 22 *Atque ita respiciens.* *ter. cer. rep.*: Cic. Arat. frag. VIII has *tereti cervice reflexum* of Draco's head: Aen. VIII 633 *tereti cervice reflexam* of the she-wolf: Ov. met. X 558 of Venus *Inque sinu iuvenis posita cervice reclinis.* *teres* is defined by Festus 'in longitudine rotundatum', and Servius more than once gives a similar explanation. Right, if a cylinder or pole be in question: so *teretes trunci* and *teres oliva* in Virgil. It is connected with *tero* and similar Greek words, and seems to denote that the thing with which it is joined is of the proper shape, neither too thick nor too thin: thus a *teres cervix* is a neck that has the true outline of beauty, neither lean nor fleshy, neither too long nor too short: so *brachiolum teres* in Catullus, *teretes surae* and *teres puer* in Horace. Apul. florid. 15 p. 51 says of a beautiful statue *cervix suci plena, malae uberes, genae teretes*, where the epithets are nearly synonymous: comp. too IV 58 the *teretis tunicas* and V 803 *Folliculos teretis* of the cicada, i.e. coats of equal and regular thinness and fineness all over. Hence metaphorically *aures teretes* in Lucr. and Cic., *oratio teres* in Cic., *ore teres* in Persius, *teres atque rotundus* in Horace. 36 *Pascit, avidos, inhians*: the simple directness of the terms has a singular force: comp. Tasso Ger. lib. XVI 19 *E i famelici sguardi avidamente In lei pascendo*: Spenser is full of imita-

tions, such as this *Long fed his greedy eyes with the faire sight.* *pascere oculos* is a common phrase: II 419 *oculos qui pascere possunt*: see n. there. *inhians in*: the verb generally takes a dat. or acc.; but Cic. Brut. 22 *in te intuenti*, 26 *in quam cum intueor.* Esdras I 4 31 *The king gaped and gazed upon her with open mouth.* 37 more emphatic than the *pendet ab ore* of Virgil and Ovid: Petron. sat. 127 *ex cuius osculo pendes.*

38 *corpore sancto* seems to belong both to *recubantem* and *circumfusa.* 39 *circumf.*: Livy VIII 35 8 *degressum eum...circumfusi*: the same constr. as in Lucr.: Ov. met. IV 360 *Et nunc hac iuveni, nunc circumfunditur illac*, and XIV 585 *colloque parentis Circumfusa sui*: in both which places it governs a dat., as in Pliny II 161 *circumfundi terrae undique homines*: comp. 87 the accus. *virgineos circumdata comptus* with VI 1036 the dat. *rebus circumdatus adpositusque*, which is the usual prose constr. as Cic. in Catil. III 2 *Tectis ac moenibus subiectos prope iam ignes circumdatosque*: but Livy VII 34 11 follows Lucr.: *circumdare undique collem armatis volunt.* Virg. Aen. VIII 406 has *Coniugis infusus gremio* of the husband in the arms of Venus; Sen. Med. 946 *infusos mihi Coniungite artus.* *loquellas*, also *querella*, and prob. *luella*: see Lach. to III 1015, who says the *l* is doubled after the long vowel, when a short one precedes it: so also *medella* cet.; but *suadela tutela* and the like, when a long vowel precedes the long vowel: a canon fully borne out by inscriptions and the best mss.: if we may depend on their mss. Cicero and Persius wrote *cămellus*, Catullus *phăsellus.* 40 *plac. pac.*: VI 73 *placida cum pace*: *placida pace* I find twice in the Aeneid, twice in Ovid, twice in Seneca. *incluta*: Plautus Pers. 251 has *Iovi incluto.* 41 *agere hoc*: here and IV 969 *Nos agere hoc autem et naturam quaerere rerum* Lucr. alludes to the famous sacrificial formula *hoc age*, so often adopted by Latin writers: it seems to have struck Plutarch as a foreigner: he more than once explains the OK ΑΓΕ, as in Coriol. p. 225, προσέχειν τοῖς ἱεροῖς καὶ μηδὲν ἔργον ἐμβαλεῖν μεταξὺ μηδὲ χρείαν ἀσχολίας. Lucr. could not, sweet as it was to see from shore one's neighbour struggling with the sea, imitate the more than epicurean indifference of Sulla: see Sen. de clem. I 12 2 *Exterrito senatu 'hoc agamus' inquit 'P. C. seditiosi pauculi meo iussu occiduntur'*: Juvenal, speaking of poetry, VII 20 *Hoc agite*, 48 *Nos tamen hoc agimus.* [42 comp. Manil. I 795 *et Claudi magna propago.*] 43 *desse*: Cic. pro Sest. 101 *Propugnatores autem reipublicae qui esse voluerunt, si leviores sunt, desciscunt; si timidiores, desunt*; ad fam. VI 6 6 *veritus sum deesse Pompeii saluti, cum ille aliquando non defuisset meae*; Caesar bell. Gall. V 33 2 *Cotta...nulla in re communi saluti deerat.* On comparing these lines with many passages in the Greek writers, it will be seen that the Roman here has been too strong for the epicurean. *desse*, and 711 *derrasse* with one *e*: see Vel. Longus ap. Lach.: but III 861 *deerrarunt*,

41—43: it seems to me that Lucr. was writing these lines towards the close of 695 or four years before his death, when Caesar was consul and had formed his coalition with Pompey. Memmius was then praetor designatus, in fierce opposition to Caesar and at that time on the side of the senate with Cicero and doubtless Lucretius. There was almost a reign of terror: see Livy epit. 103 *Leges agrariae a Caesare consule cum magna contentione, invito senatu et altero consule M. Bibulo, latae sunt.* Hear what Cic. says, writing to his brother in that year, I 2 15 *Rempublicam funditus amisimus...si qui antea aut alieniores fuerant aut languidiores, nunc horum regum odio se cum bonis coniungunt...praetores habemus amicissimos et acerrimos cives, Domitium Nigidium Memmium Lentulum; bonos etiam alios, hos* (*sed hos* Wesenb.) *singulares.* It could scarcely have been later than 696, as in the spring of 697 Memmius went as propraetor to Bithynia, with Catullus in his train: see Schwab. Catull. I p. 158 foll. He certainly did not return to Rome before 698, and the year following Lucr. died.

Gaius Memmius, son of Lucius, of the Galerian tribe, had, like the rest of his family, no cognomen; although he has very generally received one from the editors of Cicero having chosen to alter the correct reading of mss. in Cic. ep. ad fam. XIII 19 2 *C. Maenius Gemellus* to *C. Memmius Gem.*: see Mommsen Roem. Muenzw. p. 597. He would appear to have been a hard selfish unprincipled man, to judge from history and the character given him by Catullus in his 10th and 28th poems, which form a curious comment on the 'worth and sweet friendship' which Lucr. found in him, deceived, as men of his temperament so often are, by the specious qualities of a worldly man. But he was already dead when Memmius so flagrantly disgraced himself in the matter of the consulship, and went into exile, abandoned by Caesar to whose party he had impudently gone over. His country found that 'the general weal' could easily enough dispense with his services. His contempt for Latin letters which Cicero mentions would also seem to fit him but little for patron to so genuine a Latin poet. Did Lucr. address Memmius as a believer in Epicurus? or did he rather seek to convert him to that creed? In either case his teaching was sadly thrown away: he called on Memmius to look on Epicurus as a god: it appears from a curious letter, ad fam. XIII 1, written from Athens by Cicero to Memmius who had just gone to Mytilene, that the latter had obtained from the Areopagus a piece of ground on which stood some ruins of Epicurus' house, and that he wished to pull these down in order to build for himself. Though he had now abandoned the design of building, he churlishly refused to give up the property to Patro, at that time head of the school. Patro and his sect looked on these ruins as a holy place; and Cicero out of love for him and his predecessor Phaedrus and above all Atticus, begs Memmius, as the ground is now of no use to him, to let them have it. All

through the letter he expresses himself, and assumes that Memmius feels, the greatest contempt for epicurean tenets; but he says he loves Atticus as a brother, 'non quo sit [Atticus] ex istis [epicureis]; est enim omni liberali doctrina politissimus; sed valde diligit Patronem, valde Phaedrum amavit'. And surely Lucr. too had much esteemed Patro, much loved Phaedrus: Id cinerem aut manis credis curare sepultos!

Most readers of this opening address, like the one who of old placed in the margin of the ms. the six lines from the 2nd book, must have been struck by its curious contrast with the poet's philosophical principles. Bayle in his article on Lucr. n. I says it is most reasonable to call it a 'jeu d'esprit'. Lucr. seeing that all poets invoked the muses at the beginning of a great work, did not wish to be without a like ornament and chose Venus as the divinity most suitable to a natural philosopher; in the same way he invokes Calliope VI 94. There is some plausibility in this: Calliope we at once feel to be an ordinary personification of the epic muse: and had Lucretius' address to Venus had no more depth of feeling in it than that to Calliope, or other poets' invocations of the muses, we should have accepted her as a simple impersonation of the active energy of nature. But the intense earnestness of the language, the words plain and simple in themselves, yet instinct with life and passion, make us feel that there is more than this. If the poet began with such an intention, his headstrong muse has got the better of his philosophy, and constrained him to follow her guidance. This perhaps is his best defence, if defence be needed: νουθετεῖται μὲν ὑπὸ τῶν πολλῶν ὡς παρακινῶν ἐνθουσιάζων δὲ λέληθε τοὺς πολλούς. Montaigne, essais III 5, has well perceived the characteristic features of this address. He quotes the latter part of it and then compares it with a fine passage of the Aeneid, VIII 387 foll.; and thus concludes 'Quand je rumine ce *reicit*, *pascit*, *inhians*, *molli*, *fovet*, *medullas*, *labefacta*, *pendet*, *percurrit*, et cette noble *circumfusa* mère du gentil *infusus* j'ay desdain de ces menuës pointes et allusions verbales qui nasquirent depuis'. How tame even Spenser's elegant paraphrase and Dryden's translation are by the side of the original. Lamb. cites with approbation P. Victorius who argues from Plut. adv. Col. and Cic. de nat. deor. I 45, that Epic. did not forbid sacrifice and prayer to the gods; 'habet enim' says Velleius 'venerationem iustam quidquid excellit'; but he adds that Lucr. prays here not as a philosopher, but as a poet. The stoic Cleanthes' hymn to Jupiter is conceived in much the same spirit: he addresses the god as Ζεῦ φύσεως ἀρχηγέ, whom all mortals should address, Ἐκ σοῦ γὰρ γένος ἐσμέν.

Many motives doubtless were acting at once on the poet's mind. Venus was symbol of the all-pervading living force of nature; she was legendary mother of the Romans: Mars ruled the first, she the second month of spring and the year. Mars indeed in the old Italian mythology was the youthful and beneficent god of plenty, father of the Latin races:

'cum hodieque' says Macrob. sat. I 12 8 'in sacris Martem patrem, Venerem genetricem vocemus'. Why then does Lucr. desert the true old conception of this god, one seemingly well-suited to his purpose, and adopt the Greek legend? From the time of Ennius at least the Roman poets good and bad alike borrowed the setting of their poetry from Greece: the fauns and casmenae had yielded for ever before the muses of Helicon. 'Inmortalis mortalis si foret fas flere, Flerent divae Camenae Naevium poetam', Naevius wrote for his own epitaph: with Campanian insolence, Gellius says; but well they might weep for him; for in him their Homer died. Mars had now become an Ares, the destroying lord of war. Again though Empedocles' poem on nature was much shorter than that of Lucr. and doubtless in many respects inferior, yet to some extent it was to the latter what the Iliad and Odyssey were to Virgil, his technical model. Among the recently discovered fragments of Empedocles there is an address to Calliope which Lucr. prob. had in his mind when he penned VI 94. Empedocles' two great principles of love and strife by whose alternate victory and defeat he personified the ceaseless round of nature had evidently a great influence on Lucr. Comp. now the passages quoted by Sturz Emped. 240 sqq. Eustathius there tells us that Empedocles made the union of Ares and Aphrodite the symbol of his love, their release by Hephaestus the symbol of his hate: Heraclitus in his allegories declares that Homer, in naming strife Ares and love Aphrodite, confirmed the Σικελικὰ δόγματα or doctrine of Empedocles.

Long as this discussion is, I will call attention to another point: observe 26 *Memmiadae* nostro *quem tu, dea*, cet. and compare the coins of the Memmii in Cohen's médailles consul. and esp. Mommsen's Roem. Muenzw. p. 597: it will be seen that Venus crowned by Cupid appears on the coins of this Memmius and apparently his elder brother Lucius. We come to the flatterers of the Julii before we find so large a proportion of the coins of any family with Venus on them. Martha in his book on Lucr. published in 1869 (p. 61) 'propose une explication nouvelle', and draws, I am glad to see, the same inference from the coins of the Memmii which I had done, and so does H. Sauppe in the Philologus for 1865, p. 182. Virgil, who is said to have taken it from the Punic war of Naevius, tells us that the Memmii claimed descent from the Trojan Mnestheus. Aen. XII 127 Mnestheus is called *Assaraci genus*. The Memmii may have claimed Venus for ancestress, though Virgil reserved that honour for the Julii. At all events she must have been held in peculiar honour by them; and Lucr. may have wished to gratify his patron, by making her his own patron lady. Cohen says p. 112 'Hercules and Venus were the objects of the peculiar veneration of Sulla: therefore we see the head of Hercules on nos. 49 and 50, and that of Venus on 51'. Now Cohen mentions two other coins of the Memmii which have a head of Hercules: and Mommsen p. 642 describes two

struck by the son of our Memmius, one with a head of Ceres, in honour of his father; the other in honour of a remoter ancestor, with a Ceres and the legend MEMMIUS· AED· CERIALIA· PREIMUS· FECIT. At the opening of book v Ceres is spoken of and a long enumeration made of the deeds of Hercules, which are shewn to be far inferior to those of Epicurus. In the beg. of VI the discovery of corn is recorded, but declared to be of less importance than that of philosophy by Epicurus. Did Lucr. mean to say 'You pride yourself, Memmius, on your family connexion with Hercules and Ceres; but let me tell you you had better learn to be proud of the philosopher'? Many of these motives may have weighed with Lucr. and his poetical instinct carried him beyond his first intention. Let me here refer to Prof. Sellar's Roman poets of the republic p. 276 foll.

50—61 he calls on Memmius to attend, while he explains the nature of the first elements of things. 50 Lach. has rightly seen, as I have said in notes 1, that the interpolated verses have thrust out the protasis of this sentence, in which Memmius must have been addressed; unless the Verona interpr. Verg. misquotes and refers to IV 912 *tenuis aures animumque sagacem*, which is not probable: the omission of part of the v. in AB suggests a still greater disturbance. *Quod superest* is a favourite expression of Lucr. for 'to proceed to what remains' 'moreover'; and is often put in the middle of a sentence at the beg. of the apodosis, as here: compare II 39, 491, VI 1000, etc.: see also II 546 and IV 195, where it is in another part of the sentence: perhaps Aen. IX 157 is likewise a case in point. *vacuas auris* is well illustrated by Quintil. inst. X 1 32 *Neque illa Sallustiana brevitas qua nihil apud* aures vacuas *atque eruditas potest esse perfectius, apud occupatum variis cogitationibus iudicem et saepius ineruditum captanda nobis est.* Livy XLII 14 2 *praeoccupatis non auribus magis quam animis ab Eumene rege, omnis et defensio et deprecatio legatorum respuebatur*, where *respue.* illustrates *contempta relinquas* of 53; XLV 19 9 *is ad occupatas iam aures sollicitatumque iam animum cum venisset*; 31 6 *implevere aures*: Plautus has *vocivas auris*; Horace *vacuas auris*. *sagacem* a favourite epithet in Lucr. of *animus* and *mens*: the metaph. is from the scent of dogs, and is well illustrated in Forcell. where however de nat. deor. should be de divin.

51 *Sem. a curis*: wisdom and happiness being unattainable without ἀταραξία or perfect exemption from care and trouble. *veram ad rationem*=Epicuri philosophiam: comp. V 9 *vitae rationem invenit eam quae Nunc appellatur sapientia*: and II 1023 *Nunc animum nobis adhibe veram ad rationem.* *ratio* is as common in Lucr. as it is in Cicero, and has perhaps as many meanings: notice the word here and 54 and 59, the sense in each case different: and comp. 128—130 *ratio...qua fiant ratione...ratione sagaci* within three lines: the auctor ad Heren. IV 18 gives

as an instance of faulty repetition *nam cuius rationis ratio non extat, ei rationi ratio non est fidem habere.* 52 comp. Ciris 46 *Accipe dona meo multum vigilata labore*, in which there is also a reference to 142 *noctes vigilare serenas.* *disposta*, as III 420 *pergam disponere carmina*: it has the same sense as *digerere.* 54 *de sum. cae. rat.* as below 127 *superis de rebus habenda Nobis est ratio.* 55 *incipiam* rather attempt than simply begin; so IV 29 *Nunc agere incipiam*; Ter. Andr. 493 *quem tam aperte fallere incipias dolis*: see Conington to Aen. II 13, who refers to Henry: the two meanings however easily pass into one another: VI 432 *Rumpere quam coepit nubem*; and so *inceptum, coeptum.*

55 foll. *rerum primordia* or *primordia* alone is here declared by Lucr. to be his proper and distinctive term for the atoms or first elements of things. Once, IV 28, he resolves it into *ordia prima*; sometimes he has instead of it *cunctarum exordia rerum.* In the gen. dat. and abl. where these words do not suit his verse, he uses *principiorum* and *principiis*, in the plur. only: 707 *principium* applies to those philosophers who had only one first-beginning. *principia* he never employs, thus shewing that *primordia* is his proper and distinctive term, and the other a mere substitute, which he need not therefore here mention: II 313 *primorum* is used for *principiorum.* 'First-beginnings' seems to me to give the peculiar force of the term better than any other word I can hit upon: *ἀρχαί, τῶν ὄντων ἀρχαί* and the like are the equivalents in Epicurus and others. He goes on to enumerate several synonymes: *materies* i. q. *ὕλη*, *corpora genitalia* or *prima*; *corpora* alone or *corpora rerum* is more common and used at least as often as *primordia*; he also has *corpora materiai*; *corpuscula* too is not uncommon: *semina rerum* which he mentions here or *semina* alone is frequent enough. *σώματα, ἄτομα σώματα* and the like in Epicurus. Lucr. has no equivalent for *αἱ ἄτομοι* or *ἄτομα σώματα.* Cicero uses *corpuscula, atomi, id est individua corpuscula*, and *individuum* as a subst. to express the atoms of Epicurus or Democritus. Lucr. does not here mention *elementa* which is frequently found in his poem and answers to one of the commonest Greek words *στοιχεῖα.* *ὄγκοι*, bulks or magnitudes, often occurs in Epicurus, Sextus and others. None of the above terms is employed by Lucr. in the sing. to denote one atom except *corpus* once or twice: in fact he rarely needs the singular: *figurae* or 'shapes' is not unfrequent with him for his atoms, corresponding in this sense to the *εἶδος* and *ἰδέα* of Democritus, who also has *φύσις* and the strange *δέν.*

56 57 *Unde* = ex quibus, *Quove* = et in quae. *Unde, Quove, Quae* all refer to *primordia.* *Quove*: III 34 *Quove*; but in the spurious repetition IV 47 *Quoque.* V 71, 184 and 776 *Quove*: 168 and 176 are not in point, as *ve* has there its proper force. VI 29 *Quidve*: II 64 *Quaeque*: V 185 *Quidque.* In the above cases the *ve* seems = *que*: comp. Wagn. quaest. Virg. XXXVI 5, where it appears that Virgil's usage is much the

same. One might suppose that this use began from a wish not to confound the relative with *quisque*: thus III 34 *Quoque modo possint res ex his quaeque creari* would have been ambiguous. As *quicque*, not *quidque*, is the neut. of *quisque*, there would be no objection to *quidque* which is found in V 185; yet in II 64 also AB Gott. etc. have *Quaeque*; and IV 634 and VI 533 *quareve* = quareque, which would not be ambiguous. 57 *eadem* is of course fem., *perempta* being synon. with *res peremptas*. Lucr. has no objection to change to the neut.: 157 *res quaeque*, 158 *quaeque* neut.; III 424 *Quatenus est unum inter se coniunctaque res est*: see n. to III 184: this of course has no bearing on Wakefield's absurd argument that 190 *Crescentes* = *res crescentes*. Lucr. like the older writers generally, does not seem to have felt the ambiguity of *perempta* in the neut. coming next to *natura*: comp. V 1414, 1416 and 1417. 58 *gen. corp. rebus* seems = cor. quae sunt gen. rebus: see Conington to Aen. II 556, who there quotes Aen. X 135 *Aut collo decus aut capiti*, and 203 *Ipsa caput populis*; and Madvig Lat. Gr. 241 3, where Tac. hist. I 89 *longo bello materia* is not unlike this passage of Lucr. who thrice has *caput* with a dat. for a river-head: see Lach. to VI 729. 60 *suemus* and other parts of the verb are dissyll. or trisyll. indifferently in Lucr.; [Prop. I 7 5 has *consuemus*.] *usurpare*: see Forc. for instances from Cicero of this use. 61 *primis* seems in appos. with *illis*: illis, ut primis: comp. Virg. ecl. VI 33 *ut his exordia primis Omnia*.

In order to apprehend the poet's drift, which I seem to myself to see more clearly now than I formerly did, the whole of the verses from 50 to 135 must be kept in view at the same time. The loss before 50 of more lines than one apparently has broken the connexion with what precedes. Lucretius wishes at the outset to impress upon his readers that his purpose in writing is not to gratify scientific curiosity, but to free man from the two great obstacles to happiness and tranquillity of mind, fear of the gods and fear of death. He begins then with saying that he will tell of the true system of heaven and the gods. This promise he carries out in a portion of the 5th and 6th books. In the rest of the paragraph he says he will explain the nature of his first-beginnings: that explanation fills the greater part of the first two books, and is dwelt upon here with so much emphasis, because they form the necessary groundwork of his whole physical philosophy. In the next paragraph, 62—79, Epicurus is glorified for having first proved the vanity of this fear of the gods; the sinfulness of which fear is shewn in the following verses, 80—111, by a vivid picture of the sacrifice of Iphigenia. And not only fear of the gods must be banished, but also fear of death. This can be done by explaining the real nature of the soul, and the true theory of images, which will save us from being frightened by stories about hell, and of the return to earth of the ghosts of the dead: vss. 102—135. These topics are discussed at length in the 3rd and 4th books. The motive for the seemingly

somewhat artificial arrangement of these introductory paragraphs will now be understood; through ignorance of which some recent scholars have played sad havoc with the poem by vain and mischievous transpositions and the like.

62—79: human life lay prostrate beneath religion, until a man of Greece rose up, explained the true system of the universe, and trampled on religion in turn. 62 *ante oculos*, plain for all to see: often used by Lucr. in cognate meanings, as 342 and 984 (998) for what is visible to sense: [Sen. rhet. controv. I 1 16 *stare ante oculos Fortuna videbatur.*] 63 *religione*, with one *l*: so the best mss. of other authors also: *rellig.* only once, V 114, in AB. 65 *super* often in Lucr. has the sense of *insuper* or *praeterea*, never I think that of *desuper*: the former may be its meaning here; though that would be weak; I take it therefore as in 39 *circumfusa super* 'being above him', and Aen. IX 168 *Haec super e vallo prospectant Troes*, 'the Trojans being above look forth etc.': so here 'standing over mortals being herself above'. I doubt whether in Virgil it ever bears the sense of *desuper*: in Aen. V 697 I take it to mean *insuper*: yet there is no question that *superne*, a favourite word with Lucr., sometimes has the force of *desuper*; and the two meanings are often not easy to discriminate. 66 *Graius homo*, as Enn. ann. 183; and Virg. Aen. X 720 who imitates probably both Ennius and Lucr.: Ennius twice uses in the same way *Romanus homo*: Cic. ad Att. VII 3 10 *quod homo Romanus* Piraeea *scripserim, non* Piraeeum. *toll. con. oc.*: Livy VI 16 3 *nec adversus dictatoriam vim aut tribuni plebis aut ipsa plebs attollere oculos aut hiscere audebant*; Prop. I 15 37 *Et contra magnum potes hos* i.e. oculos *attollere solem?* (Sen.) Octav. 841 *Contraque sanctos coniugis vultus meae Attollere oculos.* [*mort. oc.*: see Catull. 64 17 and Ellis there.] *contra* at the end of this and the next verse are of course in intentional apposition, as are *primus* and *primum.* 68 *fama deum*: see notes 1: so Livy X 24 17 *ad famam populi Romani pertinere*; Aen. VIII 731 *Attollens umero famamque et fata nepotum*; Heyne and Conington seem to me rightly to explain in the same way Aen. IV 218 *famamque fovemus inanem*: thus Epicurus proved the *fama deum* to be *inanis*, full of sound signifying nothing. Indeed an epithet to *fama* would to my mind impair, not increase the force of the expression. 70 *Inritat* perf.: so VI 587 *Disturbat urbes*, and V 396 *superat et* which seems a certain conj. of Lach.: in each case the *-at* is followed by a vowel; but on this point see n. to III 1042 *obit.* *arta* always; so *autumnus*, but *auctus* and the like: comp. *quintus*, *Quintas*, but *Quinctius*; in the list of προξενοι in Wescher and Foucart's inscript. rec. à Delphes no. 18 we find the praenomen Κόϊντος more than once, but l. 112 Τίτος Κοίγκτιος of Flamininus: yet in the new corp. inscr. Lat. 1008 *Quinctus* is once found, [and Wilmanns' ex. inscr. 879 has *cos. quinct.* (of the year

725.)] and Plaut. trin. 524 A has *quincto*, merc. 66 Ba has *quicto*; but this spelling seems to have been quite obsolete in the time of Lucr. though recalled by the affected antiquarian Fronto: the corp. inscr. has *quinctilis* and *Quinctilius*; the old ms. of the last five books of Livy both *Quinctilius* and *Quintilius Varus*; comp. too *fartus sartus setius tortus indultus fultus.* 71 [L. Mueller compares Lucil. XXX 1 *Quoi sua committunt mortali claustra Camenae.*] *cupiret*: Enn. ann. 10 *Ova parire solet*; 384 *si vivimu' sive morimur*; Ov. met. XIV 215 *cupidusque moriri*: from Plautus and Terence many similar forms might be given.

73 Epic. is the subject of *Processit* and *peragravit.* *flamm. moen. mundi* a noble expression which frequently recurs, to denote the fiery orb of ether that forms the outer circuit of the world: its nature is fully described in the fine passage V 457—470, ending with *Omnia sic avido complexu cetera saepsit*, imitated in paradise lost III 721 *The rest in circuit walls this universe*: the use of 'universe' is of course quite unepicurean. It may be a question whether *mundi* in this phrase means the whole world, or is a synonyme, as it so often is, of *caelum* or *aether*: it certainly appears to have the latter meaning in VI 123, where *capacis* well expresses the *avidus complexus* of ether: the former seems more poetical and is confirmed by the imitation in Manilius I 151 *Flammarum vallo naturae moenia fecit*, where *naturae* clearly denotes the whole world: this constant imitator of and carper at Lucr. has also 486 *moenia mundi* in a passage where he is trying to refute Epicurus and him. 74 an emphatic oxymoron: he passed beyond this world and traversed in thought the immeasurable universe: Cic. de fin. II 102 must surely have been thinking of this passage when he says *haec non erant eius qui innumerabilis mundos infinitasque regiones quarum nulla esset ora, nulla extremitas, mente peragravisset*: see Madvig: and Hor. od. I 28 5 *animoque rotundum Percurrisse polum morituro.* *mente animoque* a mere poetical tautology: III 84 *animum dico, mentem quam saepe vocamus*; and all through that book they are synonymes. [Cic. epist. X 5 2 perhaps differentiates the two: *ut tota mente omnique animi impetu in rempublicam incumbas.*] Lucr. more than once too uses *mens animi*, as does Catullus after or before him. Virgil was probably thinking of these words and this rhythm in Aen. VI 11 *magnam cui mentem animumque*; though the expression is common in prose, and is found in Cicero, Caesar, Livy and Tacitus. 75 Lamb. seems right in comparing *refert victor* with Aen. IV 93 *laudem et spolia ampla refertis*: where *refertis* however is simply 'carry home', as Plaut. Poen. IV 2 25 *domum haec ab aede Veneris refero vasa.* At the same time it here unites the common and cognate meaning of a messenger or the like bringing back a report: the two senses I have tried to combine. The end of this and the whole of the next two verses are repeated again in

this book and in the 5th and 6th. 77 *alte term. haer.*: the metaphor is of course from a stone pillar fixed in the ground as a boundary between two properties: II 1087 *vitae depactus terminus alte*; Aen. IV 614 *hic terminus haeret*: not unlike are Accius 481 *Veter fatorum terminus sic iusserat*, and Hor. carm. saec. 26 *stabilisque rerum Terminus.* 78 *pedibus subiecta*: Livy XLV 31 3 *obnoxios pedibus eorum subiecit*; XXXVIII 46 3 *pedibus paene hostium aciem subiecit*; VIII 9 5 *super telum subiectum pedibus stantem*; Sen. epist. 94 56 *pedibus aurum argentumque subiecit*; Suet. Calig. 26 *veste detracta subiectaque militum pedibus.* Virg. geor. II 490 *Felix qui potuit rerum cognoscere causas Atque metus omnis et inexorabile fatum Subiecit pedibus strepitumque Acherontis avari* evidently alludes to this and some other passages, III 37 *Et metus ille foras praeceps Acheruntis agendus*, 1072 *Naturam primum studeat cognoscere rerum*, and V 1185 *quibus id fieret cognoscere causis.* Formerly I thought that perhaps Virgil referred to some ideal philosopher, such as Eurip. fragm. inc. 101 Dind. paints, Ὄλβιος ὅστις τῆς ἱστορίας Ἔσχε μάθησιν κ.τ.λ. and that Lucretius and the *magni docta dicta Sironis* might have prompted Virgil to think rather of Epicurus than of Lucr. himself. Conington, who in his first edition says 'that Virgil clearly refers specially to Lucretius', in his second seems to come to much the same conclusion as I had come to. But now, when I compare geor. II 475—482, in which Virgil expresses his longing to be the poet of science, with 490—492 *Felix qui* cet.; and then 483—489, in which he declares that, if his genius is unequal to that, he will seek the country and its enjoyments, with 493 494 *Fortunatus et ille* cet., I feel that by his *Felix qui* Virgil *does* mean a poet-philosopher, who can only be Lucretius. For see my note at III 449, where I shew at length how Virgil's whole mind, when he was writing his second georgic, must have been saturated with the poetry of Lucretius. Sainte-Beuve in his étude sur Virgile, p. 108, observes that Lucretius alone among Latin poets seems to have been honoured by Virgil 'comme un véritable ancien'. 79 comp. Manil. II 452 *Exaequentque fidem caelo mortalia corda.*

80—101 think it not sinful thus to spurn religion: nay rather it is religion who is the mother of unholy deeds; such as the sacrifice of Iphigenia by her own father. 80 *Illud in his rebus*, a prosaic, but very favourite phrase of Lucr. to denote some special point in the general question. 80—83 comp. Epic. in Diog. Laert. X 123 ἀσεβὴς δ' οὐχ ὁ τοὺς τῶν πολλῶν θεοὺς ἀναιρῶν, ἀλλ' ὁ τὰς τῶν πολλῶν δόξας θεοῖς προσάπτων. 82 *indugredi*; also *indupedire* and *induperator* are often used by him; *indeptus* and *iacere indu* for *inicere* once each; as well as *indu manu* and *endo mari*: in imitation I presume of Ennius: in the remains of the latter *indu* governs the abl. *endo* the acc. The forms appear to be epic, not occurring in the fragments of Ennius' or other tragedies: *indaudire* and *indipiscor* do occur in Plautus: the latter with

indigeo induo remained in use: Ribbeck scaen. Rom. frag. p. XII quotes other forms from the old glosses. *quod contra*: this expression is found in Cic. Cato 84; Laelius 90; pro Quinctio 87: comp. too de fin. V 76 *quod item fratri puto*; 83 *quod vestri non item.* Here, and 221 *Quod nunc...quia*, 623 *Quod quoniam ratio reclamat*, and in *quod utinam*, and the common *quod si*, *quod nisi*, *quod ni*, the *quod* I now think is to be explained as Ritschl after Bergk explains it, neue Plaut. Exc. p. 57; as the old abl. with the sense of *qua re*, *quam ob rem* and the like. When *quōd* or *quo* went out of use in such senses, the *quod* remained stereotyped in these phrases, as a mere symbol not understood. Buecheler, as Ritschl observes, well compares the *quod circa* of the lex Repetund. l. 13, the same as the *quo circa* of the later lex Iulia municip. ll. 103, 118; the *quocirca* in fact of literature. I would thus explain Livy XXXVIII 43 12 *nihil est, quod se ab Aetolis separent.* *illa* emphatic in a bad sense, as IV 181 and 910 *ille gruum clamor*: II 362 *Fluminaque illa* in a good sense. 84 *quo pacto*, as 912. 86 *prima vir.* a harsh expression, like Ov. am. I 9 37 *Summa ducum Atrides*: Statius perhaps imitates Lucr. in silv. III 3 197 *tibi cuncta tuorum Parebunt*, and V 1 79 *qui cuncta suorum Novit*: τὰ πρῶτα followed by a masc. gen. is common enough in Greek; [comp. Eur. H. F. last line τὰ μέγιστα φίλων ὀλέσαντες.] 87 *infula* a flock of wool knotted regularly along a *vitta* or riband, fastened by this riband round the head and hanging down *pari parte* over each side of the head: worn by priests and victims, as often seen on works of art: comp. Rich's companion s.v.: also geor. III 487, and Ov. ex Ponto III 2 74 *Ambiat ut fulvas infula longa comas, Dumque parat sacrum, dum velat tempora vitta*, of Iphigenia about to sacrifice Orestes and Pylades: she wears in Lucr. the *infula* of a victim instead of the *vittae* of a bride, which would have better become the *virgineos comptus*; these words probably implying that her hair was arranged in the *sex crines* for her expected marriage: Ov. fasti II 557 *Nec tibi, quae cupidae matura videbere matri, Comat virgineas hasta recurva comas*; as this custom was a marked feature of marriage: *capiundas crines*, Plaut. most. 226. The constr. of *circ. comp.* is like 38: see n. to 39. *comptus*, that is *compta coma*, used by Afranius also according to Festus: in III 845 it has quite a different sense. 88 the constr. is *Ex utr. mal.*, *pari parte*: *pari parte* being almost an adv. in the sense of *pariter*: V 674 *Et pariter mollem malis demittere barbam*: Lucr. never cares to avoid such ambiguities. 92 *genibus summ.* lit. 'let down by her knees': comp. Ov. met. IV 340 *genu submisit*: and VII 191 *in dura summisso poplite terra*: Valer. Max. VI 8 4 *ut se tremibunda Pindari genibus summitteret*, the constr. is quite different; though it is just possible that *genibus* in Lucr. also may be the knees of others: Sueton. III 20 *seque patri ad genua summisit.* *petebat* more graphic than the perf. 93 *in tali tem.*: Lucr. is fond of this use of *in*: 234 *in eo spatio*:

in tempore occurs more than 20 times; it is found too in Cicero, Livy and other prose writers: v 670—672 twice *certo tempore*, once *in certo tempore*; he says *in puncto tempore*, *temporis in puncto*, but *puncto diei*; *in partibus anni* and *partibus anni*. 94 Lamb. compares Eurip. Iph. A. 1222 πρώτη σ' ἐκάλεσα πατέρα καὶ σὺ παῖδ' ἐμέ, which Lucr. imitates, and not, as Blomfield thinks, Aesch. Agam. 214 (220): 'comp. Aeschin. Ctes. § 77' J. E. M.

95—100 a highly elaborated passage: in the first part a studied ambiguity in the terms which are common to marriage and sacrifice; in the last a studied contrast between the youth and innocence of the victim and her cruel fate. 95 *sublata* like λαβεῖν ἀέρδην in Aesch. Agam. 220; alluding at the same time to the ceremony of taking the bride by violence from the arms of her mother. *virum* the general term to indicate at once the *ministri* and the *viri* who executed this formal rape. *tremib.* expressing at once the trembling of the victim, and the fluttering anxiety of the bride: *tremibunda* AB: see Lach.: so mss. of Aen. x 522, of Valer. Max. VI 8 4. 96 *deducta*, said of the victim, is also a proper term for escorting the bride to her husband, *mihi deductae fax omen praetulit*. In a very old elegiac epitaph found at Beneventum, forming 1220 of the new corpus inscr. Lat. and 1623 of Mommsen's inscr. Neapol., a deceased wife says *Nunc data sum Diti longum mansura per aevum, Deducta et fatali igne et aqua Stygia*; Tac. ann. XIV 63, of Octavia, *huic primus nuptiarum dies loco funeris fuit, deductae in domum in qua nihil nisi luctuosum haberet*. *soll. more sacr.* the sacrifice of the sheep etc. in the most solemn form of marriage. 97 *claro hym.* of which we have so brilliant a specimen in Catull. 61; the hymeneal being sung partly while she was in her own home, partly as she was escorted thence to her husband's house and partly while she was with her husband. *comitari* pass. also in Ovid, who has *comitat*, *comitare*, and more than once *comitavit*. 98 99 the position of the words is very artificial: *inceste*, denoting the pollution of blood, is separated from *concideret* in order to contrast better with *casta* and *nub. tem.* when all occasion of pollution should be far away: *maesta* disjoined from *hostia* and put between *mactatu* and *parentis* gains great additional force: then notice *mact. par.*; the father who should give away the bride, is he who murders her; then too the place in the verse of *hostia* and *maesta* seems intended to be parallel with that of *Exitus* and *felix faustusque* in the foll.: *casta inceste* see n. to II 1054 *innumero numero*, and introduction pp. 15, 16. 99 *mactatu* seems a ἅπαξ λεγόμενον. 100 *Exitus* the setting sail from Aulis: comp. IV 398. 101 *Tantum...malorum* is found in the Ciris 455 cited by Wak., as well as in v 227 *Cui tantum* cet. What did Lucr. think of the fate of his own countrymen the Decii?—In the above passage I find no trace of imitation of the Agamemnon, unless the very doubtful one of λαβεῖν ἀέρδην in 95; but clear indications

here as elsewhere that Lucr. had carefully studied Euripides: 94 we saw is almost a translation of a line of Iph. Aul. Again with 98 99 comp. 1178 foll. of that play, ἀπώλεσέν σ', ὦ τέκνον, ὁ φυτεύσας πατὴρ Αὐτὸς κτανών, οὐκ ἄλλος οὐδ' ἄλλῃ χερί, and 1315 ὦ δυστάλαιν' ἐγώ... φονεύομαι διόλλυμαι Σφαγαῖσιν ἀνοσίοισιν ἀνοσίου πατρός: and with 101 comp. 1334 μεγάλα πάθεα κ.τ.λ. where Helen takes the place of religion. Again one of the most striking things in this description is the allusion to the rites of marriage: now just after the passage last quoted Achilles, to whom Iphigenia was betrothed, enters on the scene and offers to rescue his bride from death.

102—145: you will yourself at times fall away from me, frightened by vain tales of eternal punishment, which men adopt from ignorance of the soul; about the nature of which there are many false theories: one is that of transmigration adopted by Ennius: his hell being peopled only by phantoms of the living. I must therefore in addition to what I have already promised explain the true nature of the soul, as well as of those idols which frighten us in sickness or sleep. The task is difficult; but my love and admiration of you, Memmius, encourage me to labour to make these questions clear. 102 *Tutemet* or *tutimet*, a rare word found also IV 915 and in Ter. heaut.: the double suffix is curious; but Lucr. uses also *tute ipse*. *vatum* the oldest name for poets, as we are told by Varro and Enn. ann. 222, afterwards, as is well shewn by Luc. Mueller de re metr. p. 65 foll., fell into complete contempt and was discarded for *poeta*: this latter name is given to themselves by Naevius Ennius Pacuvius, to Homer by Ennius; and is used in a good sense by Cicero Lucr. and Catullus. Virgil and succeeding writers made *vates* once more a name of honour and denoted by it an inspired bard, something higher than *poeta*, as Virg. ecl. IX 34: the same again brought into fashion the antiquated and despised *camenae* or *casmenae*, even confounding them with their rivals and conquerors the muses. With Lucr. here and 109 it is a term of contempt to denote apparently singers of old prophecies and denouncers of coming ills, like the Marcius of the 2nd Punic war cited by Livy and Macrobius: comp. Horace's *annosa volumina vatum*: the epicurean Velleius in Cic. de nat. deor. I 55 contemptuously joins *haruspices augures harioli vates coniectores*: Enn. trag. 356 *superstitiosi vates impudentesque arioli*; Livy XXV 1 8 *sacrificuli ac vates ceperant hominum mentes*; XXXIX 8 3 *sacrificulus et vates*; 16 8 *sacrificulos vatesque*; Sall. orat. Philip. 3 *vatum carminibus*. Zeuss gram. Celt. I p. 57 shews that the word is the same as the old Irish *fáith*, Strabo mentioning as the three highest classes among the Gauls βάρδοι τε καὶ οὐάτεις καὶ δρυίδαι, and explaining οὐάτεις to be ἱεροποιοὶ καὶ φυσιόλογοι. 103 *terriloquis*: lexicons give no other instance of the use of this word: Virg. Aen. V 524 has *terrifici cecinerunt carmina vates*. The poet's mistrust of Memmius here and in 332 is curious and would seem to confirm

what has been said of the small respect which the latter shewed to Epicurus and epicureans. 104 *fing. som.*: Virg. ecl. VIII 108 *ipsi sibi somnia fingunt.* 105 *vertere* = *evertere* in Virg. Aen. I 20 II 652 X 88: also in Horace Ovid and perhaps Cicero, as shewn by Forc. 106 *turbare*: Wak. compares Aen. XI 400 *omnia magno Ne cessa turbare metu.* 107 *Et merito; nam*: Ov. met. IX 585 *Et merito; quid enim* cet. *certam finem*: *finis* is always fem. in Lucr.: the mss. II 1116 have *extremum finem* which Lach. rightly alters. 109 *Relig.* often used by Lucr. in the plur. for religious fears or scruples: he twice has *religionum nodis exsolvere*, shewing that he felt *religio* to be connected with *religare*, as does Cic. de domo 105 *nisi etiam muliebribus religionibus te implicuisses*, though elsewhere he derives it from *relegere.* Fick vergl. woerterb. p. 488 traces it to a root signifying 'to care for', 'to trouble one's self for', connecting it with ἀλέγω, ἄλγος, etc. (Homer Διὸς οὐκ ἀλέγων): *nec-lego* 'not to care for'. 110 *restandi* common enough in the poets for *resistendi*: see Forc.: Livy IV 58 4 *summa vi restare*; [XXIII 45 9 *nunc paucis plures vix restatis.*] 111 Lach. here and V 302 adds *est* omitted in mss. because, he says, it cannot be omitted after the gerund, unless an infin. *esse* or a compound of *esse* follow. I have followed him in both places, but with hesitation, as Serv. to Aen. XI 230 quotes our verse without *est.* Lucretius has at least a dozen instances of the acc. after the gerund, instead of the participial constr.; [see Roby Gram. pt. II p. LXXII;] but the accus. is gen. a plur. except III 626 *eam faciundum est*, and 926 *mortem putandumst*: comp. Serv. l. l. where *pacem petendum* is read on his authority and that of other grammarians against the best mss.: Livy XLII 5 6 the ancient and sole ms. has *ad spernendum pacem*; but Gronov. and Madvig change it to *spernendam*: the constr. is known to Cicero Cato 6 *viam, quam nobis quoque ingrediundum sit.*

113 two theories of the origin of the soul; the true one that it is born with the body, the false that it enters the body at the body's birth: 114—116 three theories of the soul after death, first the true one that when severed from the body, it dies with it; secondly the false one that it enters Orcus; thirdly the equally false one that it migrates into some other living creature: Ennius believed in the Pythagorean transmigration of souls, and therefore in the 2nd and false theory of the soul's origin and the 3rd and false one of its migration after death: ann. 10 *Ova parire solet genu' pinnis condecoratum, Non animam; et post inde venit divinitu' pullis Ipsa anima.* 114 *dirempta* refers of course to *visat* and *insinuet se*, as well as to *intereat.* 115 *lacunas* may mean pools of water, as V 794, VI 552; or merely hollows, chasms, as apparently VI 538, and Cic. Arat. 427 *Insula discessit disiectaque saxa revellens Perculit et caecas lustravit luce lacunas.* 116 *pecudes alias* seems clearly a Grecism, like Herod. I 216 θύουσί μιν καὶ ἄλλα πρόβατα ἅμα

αὐτῷ, and Empedocles 141 Karsten ἄνθρωποί τε καὶ ἄλλων ἔθνεα θηρῶν: III 611 *sensus alios* with reference to *animam*; Plaut. Men. 839 *hircus alius*; Aen. VI 411 *alias animas*; Livy VII 8 1 *vulgus aliud armatorum*; X 8 4 *in ceteris humanis*; Tac. ann. III 42 *aliud vulgus obaeratorum aut clientium*; hist. IV 56 *ceterum vulgus*. *insinuet* a very favourite word of Lucr. with many constructions: either active as here with two accus. one transit. the other governed by the *in* (comp. *haec animum advertere*); or with one accus.; or neut. with an accus. gov. of the *in*, or neut. with *per*: often too passive; once, IV 1030, followed by an accus.; elsewhere by a dat. as 113, or a prep. *per* or *in*. [It is used neut. by Cic. epist. IV 13 6 *in ipsius consuetudinem...insinuabo*.] **117** *Enn. noster*: he is so called by his admirer Cicero, pro Archia 18 and 22. *qui primus* cet. that is, who first brought to Latium the muses of Helicon and introduced Greek metres and Greek principles of art: comp. ann. 221 *scripsere alii rem Vorsibu' quos olim Faunei vatesque canebant; Cum neque musarum scopulos quisquam superarat Nec dicti studiosus erat*: the *mus. scop.* being the rocks of Helicon. To this Porcius Licin. refers ap. Gell. XVII 21 45 *Poenico bello secundo musa pinnato gradu Intulit se bellicosam in Romuli gentem feram*. The way in which Lucr. speaks of Ennius here is striking, when we compare what Heraclit. alleg. Homer. c. 4 says of Epicurus: ἅπασαν ὁμοῦ ποιητικὴν ὥσπερ δέλεαρ ἀφοσιούμενος: it would seem that an enthusiastic pupil must differ in temperament from his master. **119** *gentis It. hom.* seems simply to mean those races of men which are Italian, not unlike IV 733 *Cerbereasque canum facies*; Hor. epod. 10 12 *Graia victorum manus*; but see n. to 474; and comp. 10 *species verna diei*. *clueret*, a favourite archaism of Lucr. = sometimes *audio*, sometimes simply *sum*. Ennius ann. 4, if Vahlen is right, speaks even more proudly, *Latos per populos terrasque poemata nostra Clara cluebunt*: but this reading is more than doubtful. **120** foll.: but though he holds this opinion, he yet moreover believes in Acheron, teaching however that only bloodless idols of the dead dwell there; one of which appeared to him in the shape of Homer. **120** *Etsi praet. tam.* is somewhat prosaic. *Acher. templa* occurs also III 25, and is found in Enn. trag. 107 *Acherusia templa alta Orci*. Lucr. is very fond of the expression *caeli templa* with various epithets; he has also *caelestia* and *mundi templa*: it is not uncommon in Ennius and others: the phrase seems evidently adopted from the augural division of the heaven into *templa*: hence it conveyed a stately solemn notion; and is applied to Acheron; Plautus miles 413 has *in locis Neptuniis templisque turbulentis*: V 103 *humanum in pectus templaque mentis*; IV 624 *linguai templa*, where see note.

122 body and soul do not hold together and reach this Acheron, but only pale idols. *permaneant* seems especially said of the soul or body continuing after death, like διαμένειν: comp. Sext. Emp. adv. math. IX

72 καὶ καθ' αὑτὰς δὲ διαμένουσιν [αἱ ψυχαί], καὶ οὐχ ὡς ἔλεγεν ὁ Ἐπίκουρος κ.τ.λ. and 73 εἰ οὖν διαμένουσιν αἱ ψυχαί. Cic. Tusc. disp. I 108 *cera circumlitos condunt ut quam maxime permaneant diuturna corpora*: of the soul more than once, as ib. 18 *qui discedere animum censent, alii statim dissipari, alii diu permanere, alii semper*; 36 *permanere animos arbitramur consensu nationum omnium; qui in sede maneant* cet.: below he quotes a passage from an old tragedian, probably Ennius, to which possibly Lucr. may here refer, *Unde animae excitantur obscura umbra, aperto ex ostio Altae Acheruntis, falso sanguine, mortuorum imagines*, as it is read in Baiter and Halm's ed.: Ennius may have got the word himself from Epicharmus: frag. B 7 Lorenz ἄνω τὸ πνεῦμα διαμενεῖ κατ οὐρανόν: Sen. epist. 57 7 has *permanere*; 76 25 *manent* in the same sense. It may be said that with Ennius the soul did not dissolve: that is so; but it went into another body and entirely changed its condition; and Ennius no doubt thought of the dissolution of the old body and soul as complete. With *Quo perman.* i.e. usque ad Acher. templa, Lach. compares several passages: Ovid ars II 120 *Solus ad extremos permanet ille rogos* is perhaps the most in point: comp. too Vitruv. III praef. 2 *aeterna memoria ad posteritatem sunt permanentes*; Suet. Aug. 78 *ad multam noctem permanebat.* 123 Virg. has at least four imitations of this v.: geor. I 477 repeats the very words: comp. Homer's βροτῶν εἴδωλα καμόντων. 124 Ennius ann. 6 *Visus Homerus adesse poeta* is a fragm. of this vision: Cicero more than once infers from these words that it was a dream, not a real vision. *sem. flor.*: Ov. met. VII 702 *semper florentis Hymetti*; culex 407 *semper florida tinus*; Sen. Oed. 532 *Cupressus virente semper...trunco*; Ovid fasti IV 519 *semperque parens*: Ter. Andr. 175 *eri semper lenitas*; [Livy VIII 1 9 *suos semper hostes, populi Romani numquam amicos*; Florus 8 2 (L. Mueller p. 29) *Tam malum est audere semper quam malum est semper pudor*: comp. *paene insula.*] 125 the tears were doubtless in regret for life: Aen. II 271 Hector seems to weep for his own wounds and the fall of Troy: comp. too Il. ψ 105. 126 *expandere*=V 54 *rerum naturam pandere*: it is a rare word. 127 foll. refer back to 54 foll.: we must not only rightly explain the system of heaven and the nature of the gods, in order to rid men of their fear of them; but likewise the real nature of the soul and of those images which are emitted from all things, that we may not dread eternal punishment, or believe like Ennius that ghosts can come back to visit the earth. 128 *meatus*, a favourite word of his: V 76 *solis cursus lunaeque meatus.* 130 *tum cum*: *tunc cum* AB; also III 710, VI 250 both have *tunc* before a consonant, but nowhere else: Lach. therefore, as Flor. 31 Camb. before him, properly reads *tum* after the usage of older writers: see also Wagner quaest. Virg. XXV 5: *tunc* before a consonant is common in Livy and the silver age. 132 *Et quae res* cet. as explained in the 4th book: *res* is the *imagines* or *simulacra*,

'images or idols', εἴδωλα, which are shed from all things, not the bloodless phantoms, which Ennius feigns to issue out of Acheron; and which terrify us when sick or asleep. The constr. of this verse is shewn by IV 33, which is the best comment on it, *Atque eadem* (simulacra) *nobis vigilantibus obvia mentes Terrificant atque in somnis, cum saepe figuras Contuimur miras simulacraque luce carentum*: it is well explained by N. P. Howard, Journ. of philol. I p. 116, who observes that *somnoque sep.* is a brachylogy for 'et quae res, nobis somno sepultis obvia, mentes nostras per somnum terrificet': the 'vigilantibus obvia' only of course affect us when under the influence of disease. The emphatic repetition of these horrid visions seen in sickness might seem to confirm what is related of the poet being subject to fits of delirium, or disordering sickness of some sort. A curious comment on these vss. and Jerome's or Suetonius' assertion that Lucr. was 'amatorio poculo in furorem versus' is furnished by the same Suetonius in what he says of Caligula IV 50 'creditur potionatus a Caesonia uxore amatorio quidem medicamento, sed quod in furorem verterit. incitabatur insomnia maxime; neque enim plus quam tribus nocturnis horis quiescebat, ac ne iis quidem placida quiete, sed pavida miris rerum imaginibus': comp. Lucr. *figuras Contuimur miras.* **133** *som. sep.*: V 975 *somnoque sepulti*: used by Ennius before and Virgil after him. **135** repeated IV 734, but there *quorum* begins the verse. Virg. Aen. X 641 has *morte obita* and V 31 *tellus...gremio complectitur ossa*: Cicero also uses *morte obita.* As he treats of the soul and these images so fully in III and IV, it might seem that the motives he here assigns are too narrow; but like a true disciple of Epicurus he wishes to persuade his reader or himself that he discusses these questions not for their scientific interest, but to free man from vain fears of the gods and death, and to produce that tranquillity of mind, without which happiness is not possible: he reiterates the same just below, 146—158.

136 *Nec me animi fallit* is found also 922 and V 97: Ter. eun. 274 *ut falsus animi est*: this use of *animi* is common after many verbs and adjectives: *pendere animi* is in Cicero; Plautus trin. 454 has *Satin tu es sanus mentis aut animi tui*, [and Epidic. 138 *Desipiebam mentis*,] shewing the idiom is not confined to *animi.* Madvig emend. Liv. p. 136 says 'neque Cicero neque Livius neque quisquam post comicos et Lucretium (apud quem est *animi fallit*) genitivum illum adiunxit nisi iis verbis, quae dubitationem et sollicitudinem significant.' **139** on this and similar passages see what is said above p. 11 of this vol. *egestatem*: Sen. epist. 58 1 *quanta verborum nobis paupertas, immo egestas sit* cet.; Pliny epist. IV 18 *inopia ac potius, ut Lucretius ait, egestate patrii sermonis.* **141** *amicitiae*, with reference probably to the great importance Epicurus attached to the cultivation of suitable friendships. *sufferre laborem* occurs in Enn. ann. 405. **142** *noctes serenas*:

comp. Virg. ecl. IX 44 *te pura solum sub nocte canentem*: *serenas* seems merely a poetical epithet. 143 *demum*: comp. 486 *solido vincunt ea corpore demum*; Aen. I 629 *hac demum voluit consistere terra.* 144 *praepand. lum.* Lamb. explains 'δᾳδουχεῖν, praeferre faceis: praeferendo faceis lumen aperire. uno verbo Latino *praelucere*'; and comp. V 657 *auroram differt et lumina pandit*; Cic. Arat. 40 *hiberni praepandens temporis ortus.*

146—158: this terror and darkness of mind must be dispelled by the knowledge of nature; whose first principle is 'nothing can be produced from nothing by divine power': from this truth all the rest will follow. 146 147 148: these verses are repeated in the 2nd 3rd and 6th books, and form in fact the keystone of epicurean physics: the knowledge of nature is desirable not for itself, but in order to overthrow ignorance and superstition: Epic. says himself in his 10th κυρία δόξα ap. Diog. Laert. X 142 εἰ μηθὲν ἡμᾶς αἱ περὶ τῶν μετεώρων ὑποψίαι ἠνώχλουν καὶ αἱ περὶ θανάτου μήποτε πρὸς ἡμᾶς † ἐστι,...οὐκ ἂν προσεδεόμεθα φυσιολογίας: Cic. de fin. I 64 the epicurean Torquatus says *Sic e physicis et fortitudo sumitur contra mortis timorem et constantia contra metum religionis et sedatio animi omnium rerum occultarum ignoratione sublata.* 146 *igitur*: well then to come to my subject, difficult as it is in Latin: and the *terrorem animi tenebrasque* refers to all he has said in 62—135. 147 *luc. tela*, though connected by the disjunctive *neque*, are the *radii solis*: comp. 479 *Non.. constare neque esse.* 148 *species*, the outward form and aspect: cf. 950 *Naturam rerum qua constet compta figura*: [comp. Manil. I 35 *et veneranda Non species tantum sed et ipsa potentia rerum.*] *ratio* is the inner law and principle after which nature develops itself, *naturae ratio* being a translation of Epicurus' φυσιολογία. 149 *cuius* i.e. naturae: it is monosyll. also in Lucilius, and Virg. catal. 11 35 *Non cuius ob raptum*, as is *eius* in Cic. Arat. fragm. XIV *Atque eius ipse manet*: and this is the usual scansion of *cuius* and *eius* in the scenic poets. *exordia sumet*: V 331 *neque pridem exordia cepit*: Cicero has *exordium ducat*: the metaphor is doubtless from beginning a web: see Forc. s.v. *ordior* and *exordior*: the same metaph. is kept up in 418 *ut repetam coeptum pertexere dictis*, and VI 42 *inceptum pergam pertexere dictis*: the auctor ad Heren. II 42 quotes from an old poet *Nunc ego te ab summo iam detexam exordio*: id. III 11 *principium sumetur aut a*; IV 19 *principia sumuntur*; Aen. IV 284 *quae prima exordia sumat*; all of them perhaps pointing to the same metaphor. 150 so Diog. Laert. IX 44 of Democritus, μηδὲν ἐκ τοῦ μὴ ὄντος γίνεσθαι. Aristotle again and again declares this to be common to all physiologists: Lucr. adds to the definition *divinitus* and just below *divino numine*, because this is the fruitful source of religious fears. See Tyndall, Fragments of Science p. 91, 'One fundamental thought pervades all these statements, there is one tap root from which they all spring: this is the ancient maxim that out of nothing nothing comes, that neither in the

organic world nor in the inorganic is power produced without the expenditure of other power'. *nilo*: *nil* is always a monosyll. in Lucr., *nilum* and *nilo* are always dissyll. as is proved by this, that in most cases they must be, in all cases they may be of this quantity; and in no case need be dissyll. and trisyll. respectively. After the usual fashion of mss. A and B with hardly an exception write *nihil*, *nihilum*, *nihilo*: see Lachmann's precise note, who shews that Virgil in reality uses *nihil* only twice as a dissyll. 151 *continet* seems to be used as in Quint. I 3 6 *quosdam continet metus, quosdam debilitat*; Livy XXX 20 5 *quae pauca magis metu quam fide continebantur*: Lexicons give other instances. 153 *Quor. operum*: see n. to 15. 156 (157) *quod sequimur* Bentl. explains by τὸ ζητούμενον, τὸ ἀπορούμενον, as VI 808 *ubi argenti venas aurique secuntur*: comp. Cic. ad Att. III 16 *si spes erit, Epirum; sin minus, Cyzicum aut aliud quid sequemur*; X 18 2 *Formias nunc sequimur*; XII 27 1 *sequor celebritatem*; Aen. IV 361 *Italiam non sponte sequor.* 157 158 (158 155) *et—et*—explain *quod sequimur*: these two verses therefore merely state in other words *Nullam rem e nilo gigni divinitus.* 158 (155) *quaeque* is neut.: comp. 57. *opera sine divom* is said perhaps with reference to Accius 159 *Nam non facile sine deum opera humana propria sunt bona.*

159—214: if things could arise from nothing, any animal might be born any where, any fruit grow on any tree. But that every thing is produced from a definite seed is proved in many ways: flowers corn fruits come at stated seasons: again animals and plants require time to grow up: the products of the earth want rain at stated times, animals food: men are of a definite size, and never grow to a gigantic bulk: lastly the fruits of the earth require cultivation, and do not improve spontaneously. —From the nature of the case this is rather a full statement of what he means by nothing coming from nothing, than a proof: his theory of fixed unchangeable seeds of things or atoms he subsequently demonstrates with great clearness and power: some of his arguments even Newton seems not to have disdained to borrow. 159 almost a transl. of what Epic. himself says in his letter to Herod. Diog. Laert. X 38, quoted by Lamb. and others, οὐδὲν γίνεται ἐκ τοῦ μὴ ὄντος· πᾶν γὰρ ἐκ παντὸς ἐγίνετ' ἂν σπέρματός γε οὐθὲν προσδεόμενον. 161 *mare*: this abl. is common in Ovid, and is found in Plautus who puns on *amare* and *a mare*, and in both the Varros: see Neue Formenl. I p. 233 and Priscian and Charisius quoted there. Ovid has *caeleste bimenstre* and more than once *rivale*, Lucan *natale*: comp. 1013 *simplice* and II 635 *pernice* and n. there: see also the instances given by Mommsen, Hermes I p. 466 §3: the antiquarian Fronto, ad M. Caes. III 13, recalls *in mare.* *primum* followed by no *deinde* or other particle: VI 1068 *Saxa vides primum* cet.: this form of expression is common enough in Cicero and others; as Ter. Andr. 211; Virg. geor. III 384; Juv. II 4: see too Madvig de fin. I 17. 162 is *squamigerum*

nom. sing. or gen. plur.? for the former you have *mortale, humanum genus* and the like; but Lucr. also says *hominum genus* cet. and elsewhere he uses the word only as a subst., *squamigerum pecudes* occurring twice: Lamb. marks it as a gen.: there is the same ambiguity in Aen. III 221 *Caprigenumque pecus*; with which Macr. sat. VI 5 14 compares *caprigenum trita ungulis* of Accius, and *caprigeno pecori* of Pacuvius; from whom Cic. prognost. fr. 6 borrows *caprigeni pecoris.* V 1156 *divom genus humanumque* shews how indifferently Lucr. uses both constructions: III 73 the gen. *consanguineum* seems a harsher contraction than *squamigerum*; or IV 586 *genus agricolum*, or *Aeneadum*: see also n. to V 727 *Chaldaeum.* Cic. orator 155 156 quotes some harsh instances from the old poets and then points out when use admits or requires the contraction: he allows himself, he says, to use either *pro deum* or *pro deorum*; but only *trium virum, sestertium, nummum*, 'quod in his consuetudo varia non est, planeque duorum virorum iudicium aut trium virorum capitalium aut decem virorum stlitibus iudicandis dico numquam'. 163 *arm. at. al. pec.* may be looked upon as one clause in appos. with *gen. om. fer.* 166 Virg. geor. II 109 *Nec vero terrae ferre omnes omnia possunt*: the expression is prob. almost proverbial, like *non omnia possumus omnes.* 167 *Quippe* is here joined with 168 *Qui*: *ubi—cuique* being a separate clause: so 242 *Quippe* belongs to *quorum*: *ubi—corpore* being a separate clause: but 182 *Quippe ubi* are of course connected: he never cares to avoid such ambiguities of construction. 169 *At nunc*, very common in Lucr. when he is passing from what is not to what is true; also 221 *quod nunc*, 675 *Nunc igitur*; 110 and VI 570 *Nunc*, alone: *nunc, nunc autem, nunc vero* are thus used by Cicero; and *nunc* is common in Livy. 170 171 for constr. comp. n. to 15. *inde ubi* = ex eo, in quo. 171 *materies* and *corpora prima* are of course synon.; see n. to 55 foll. 172 common as *quare* is in Lucr., this is the only instance of *hac re* = hanc ob rem: Cicero uses *ea re*; but we find *hac re* in Balbus ap. Cic. ad Att. IX 7 B 2; Balbus and Oppius ib. A 2; Mela I 54; II 63; 97; III 31; Sen. epist. 9 9 twice; Phaedr. IV 10 4; Priap. 13 4. [See also Cic. epist. VIII 11 2 *quibus hac re* ('on this account', 'for this purpose') *ad intercessionem evocandam interpellantibus*: see Madv. adv. cr. vol. 3 p. 161 where the sentence is amended.] 173 *secreta* means distinct and peculiar to each.

174 Cic. Tusc. disp. V 37 says *neque est ullum quod non ita vigeat... ut aut flores aut fruges fundat aut bacas*; the *flores aut fruges fundat* answers precisely to *rosam—frumenta—fundi*; but then for *vites* you would expect *uvas* to complete the parallel; so that *vites fundi* seems to be said with a change of meaning and to = fundere se, i.e. fetus; comp. 351 *Crescunt arbusta et fetus in tempore fundunt.* 176 *Si non...quia*; as in 203, III 746: IV 1199 *Si non...quod*; III 406 *Si non omnimodis*; III 355 *Si non,...quod* (relat.). 178 *tempestates* from the context im-

plies the due seasons, as Lamb. rightly interprets: Cic. ad fam. XIV 4 5 *si esset licitum per nautas, qui tempestatem praetermittere noluerunt*; XVI 1 2 *et comites et tempestates et navem idoneam ut habeas, diligenter videbis*: for *adsunt* can hardly mean, as Wak. explains it, 'are propitious': a god *adest*, stands by, and by that very act is *praesens* or propitious: again a patron *adest*, πάρεστι, to advocate your cause: Livy XXVI 48 7 *sociis C. Laelius praefectus classis, legionariis M. Sempronius Tuditanus aderat*: but neither of these uses applies to *tempestas*: the *praesentes Austri* of Hor. sat. II 2 41 is ironical. 181 *at. al. par. an.*: Virg. was prob. thinking of this expression and rhythm when he said geor. II 149 *atque alienis mensibus aestas*. 183 *concilio* is one of his regular technical words for the uniting of the atoms to form a *res*: the verb is used in the same way. For the double abl. comp. Madv. Lat. gram. 278 a: he quotes one clause of Cic. Brut. 315 with 3 abl. *meo iudicio tota Asia illis temporibus disertissimus*: the words there, as here, admitting no ambiguity: 1021, repeated V 419, has also three, *neque consilio primordia rerum Ordine se suo quaeque sagaci mente locarunt*: V 296 *multa caligine taedae Consimili properant ratione ardore ministro Suppeditare*; and VI 27 28: Caes. bell. G. I 24 5 *ipsi confertissima acie reiecto nostro equitatu phalange facta...successerunt*; IV 34 1 *quibus rebus perturbatis nostris novitate pugnae tempore opportunissimo Caesar auxilium tulit*; VII 24 3 *eodemque tempore toto muro clamore sublato duabus portis ab utroque latere turrium eruptio fiebat*; [VII 81 1 *hoc spatio magno...numero effecto media nocte silentio ex castris egressi*; bell. civ. III 41 3 *postero die omnibus copiis magno circuitu difficili angustoque itinere Dyrrhachium profectus est*;] Cic. ad Att. III 15 4 *quo te non meo casu maximo dolore esse affectum scio*; 22 3 *premor luctu desiderio omnium meorum*; Q. Cic. comm. pet. 10 *collum gladio sua dextera secuerit*. 185 *ad* 'after' or 'upon': VI 316 *ad ictum*; Cic. Verr. IV 32 *ad hospitum adventum*; ad fam. III 5 3 *ad meum adventum*; Livy VI 27 9; IX 7 7; XXI 61 4; Tac. ann. II 6 *ad famam*; Ov. met. II 774 *ima ad suspiria*; Sen. de benef. IV 6 6 *ad surgentem iam aetatem*: see Gronov. 186 *infantibu' parvis*: comp. Cic. orator 161 *quod iam subrusticum videtur, olim autem politius, eorum verborum, quorum eaedem erant postremae duae litterae quae sunt in* optumus, *postremam litteram detrahebant, nisi vocalis insequebatur. ita non erat ea offensio in versibus quam nunc fugiunt poetae novi. ita enim loquebamur* qui est omnibu' princeps *non* omnibus princeps *et* vita illa dignu' locoque *non* dignus. This suppression of *s* is common in Lucr. and is not avoided by Cicero himself in his verses: in all the older poets, Ennius Lucilius etc. it is of course very frequent. Prob. Cic. includes Catullus among the *poetae novi*, though he has one instance of the licence in the last v. of his poems, *tu dabi' supplicium*: our mss. with one doubtful exception always write the *s*: Lamb. first suppressed it: it is not at all certain that the ancients did not write

it; and perhaps Cicero means *loquebamur* to contrast with *scribebamus*. Lucretius' frequent employment of this archaism, after it had been generally dropt, may be one of the reasons which made Cicero deny him *ars*, if indeed he did deny it him: see introduction p. 17 foll. 187 probably he meant the rhythm to be an echo of the sense. *arbusta*: as *arbores* cannot come into the verse, Lucr. always uses for it *arbusta* in the nom. and acc.: but as *arboribus* is suitable enough and often used, in the only instance of *arbustis*, v 1378, the word has its ordinary meaning of plantations of trees. 188 *quando* in the sense of *quoniam* or *quandoquidem* and always governing an indic. is oftener employed by Lucretius than in the temporal sense; and is common in the older writers: Madv. de fin. v 21 and 67 allows it also in Cicero. With 188—190 comp. II 707 *Quorum nil fieri manifestum est, omnia quando Seminibus certis certa genetrice creata Conservare genus crescentia posse videmus*: that there is a hiatus here such as I have suggested I feel certain, and I believe I have given almost the words of the author: comp. too 180 *Quod si de nilo fierent, subito exorerentur, Incerto spatio atque alienis partibus anni*: where the opposite is stated, *paulatim* contrasting with *subito*, *tempore certo* with *Incerto spatio* cet. How any critics should now maintain as Wak. maintained, that the passage is complete as it stands and that *crescentes=res crescentes* I cannot understand: see n. to 57. 191 *grandescere*, used twice again by Lucr. and by Cic. prognost. fragm. 5.

192 *Huc accedit uti*, a prosaic but very common phrase in Lucr.: also *h. ac. item quod*. 197 he several times repeats this comparison of the elements of words with the elements of things, led to it doubtless by the common name. It is a favourite and natural artifice of his to give colour to his arguments on abstruse matters by illustrations from things visible or intelligible to all: to this we shall often have occasion to draw attention. 200 *per vada*: the deep sea being but a ford to them. 202 perhaps one of the 3 cases where *saecla* in Lucr. has its ordinary sense; the other two being III 948 and 1090: see n. to 20 *saecla*: so that *vit. saecla* will here mean the number of years over which a life, probably a human life, extends: comp. Virgil's imitation in geor. II 295 *Multa virum volvens durando saecula vincit*; and Aen. XI 160 *vivendo vici mea fata*: in all these cases the alliteration has influenced the phrase. 207 *Aeris...auras* and *aeriae aurae* are very favourite pleonasms for *aer* in Lucr. *teneras*: II 146 *Aera per tenerum*: the air has the same epithet in Ennius Virgil and Ovid: it implies what is soft yielding elastic: comp. Ov. trist. III 8 7 *tenera nostris cedente volatibus aura* and Cic. de or. III 176 *nihil est enim tam tenerum neque tam flexibile neque quod tam facile sequatur quocumque ducas, quam oratio*, where it has the same force; as also orator 52: de nat. deor. II 65 he translates by *aethera, Qui tenero terram circumiectu amplectitur* the αἰθέρα, Καὶ γῆν πέριξ ἔχονθ' ὑγραῖς ἐν ἀγκάλαις of Euripides. 209 *manibus* is the abl.

instr., by manual labour, = II 1165 *manuum labores*: Cic. de off. II 13 *sine hominum labore et manu*; 14 *sine hominum manu atque opera.* *mel. red. fet.*: comp. Cic. de orat. II 131 *quo meliores fetus possit et grandiores edere* (*ager*): *reddere* is regularly used in this sense. *fetus* with one exception always in Lucr. means the produce of the earth or trees. 210 *videlicet* has here the construction of *videre licet*: so II 469 *Scilicet esse globosa*: the same constr. is found in Plautus, Terence, Sallust, once in Cicero, ad Att. V 11 7, and in the antiquarians Fronto and Gellius: on the other hand Lucr. II 809 *Scire licet..putandum est,* uses *scire licet* for *scilicet.* 211 212 repeated with slight change V 210 211. *cimus* he uses only in these two places, *ciere* being the com. form: III 303 *percit*; VI 410 *concit*; II 327 *excitur*: he also has *excītus.* 213 214 if there were no first-beginnings, things might be much worse or much better quite independently of our control.

215—264: nothing can be reduced to nothing: things dissolve into their first-beginnings: if this were not so, a thing might pass away in a moment without any force: again how could all things, animate and inanimate, be replenished? if nothing were imperishable, infinite time past must have reduced all things to nothing: a mere touch would destroy all things alike: rains pass away; but the earth which receives them sends forth her produce; and from it all animals are nourished: nothing therefore is utterly destroyed. 216 Epic. after what is quoted at 159, continues καὶ εἰ ἐφθείρετο δὲ τὸ ἀφανιζόμενον εἰς τὸ μὴ ὄν, πάντ' ἂν ἀπολώλει τὰ πράγματα, οὐκ ὄντων τῶν εἰς ἃ διελύετο. *dissoluat*: as in 3 places, I 559 III 706 VI 446, this word must be of 4 syllables from the necessity of the metre, Lucr. never ending a verse with 3 spondees, I have followed Lach. in so regarding it in those places also where it might be a trisyll. as here for instance; though it is of course a doubtful point. *interemat* and 226 *peremit*: A and B, as all good mss. of all good authors, invariably thus spell these words; as also *neglego* and *intellego.* 217 *Nam*, 219 *enim*: Lucr. does not at all avoid thus using *nam, enim*; *nam, nam*; *enim, enim,* and the like in consecutive sentences, as the Greeks use γάρ: occasionally we find them in three successive clauses: II 749 *enim,* 751 *enim,* 753 *Nam*; III 754 *enim,* 756 *enim,* 757 *enim*; V 7 *Nam,* 13 *enim,* 14 *Namque*: thus Cicero ad Att. II 3 2 has *nam—etenim—enim—nam* in 4 consecutive short sentences; and XVI 6 2 *enim—enim—enim* in 3. 221 *Quod nunc*: see n. to 82 *quod contra*: and comp. Varro de re rust. III 3 8 *quod nunc, ut habeant multos apros ac capreas, complura iugera maceriis concludunt*; Cic. de fin. I 67. *nunc*: see n. to 169. *aet. const. sem.*: Madv. Cic. de fin. IV 19 says that Cic. never has the simple abl. after *consto* but always *ex*: in Lucr. the former is very frequent; more so than the latter: he also employs both constructions with *consisto.* [He has also IV 1229 *de semine constat*; see Draeger hist. synt. vol. I p. 515:

comp. too n. to I 420.] 222 *Donec vis obiit*=exactly 246 *dum.. Vis obeat*: *donec* and *donique* 'until' in Lucr. take an indic. with the exception of IV 997 *Donec.. redeant*; and this is the usual constr. in the older writers: the word is scarcely found in Cicero, though *usque eo, donec.. venimus* has been pointed out to me in the Verr. (2) I 17: V 178 *donec* is 'so long as': in II 950 I am inclined to take *solvit* to be a perfect, with a change of constr. in next v.: the tense of the indic. will then always be the perf. except V 997 *Donique privarant*, where the pluperf. seems to be an attraction of the prec. imperfects. For the usage of Tacitus, who employs the word very often, see Woelfflin in the philologus vol. 27, p. 127. 224 *videri* here has the force of *esse*, which φαίνεσθαι so often has in Greek: 262 it has its usual sense of 'to seem', and 270 it is a simple passive of *video*: Lucr. uses homonymes in this way again and again without its appearing to strike him that there can be any ambiguity: we meet for instance in the same or in contiguous vss. with *corpora* in its ordinary sense and in that of atoms; as II 714 *multaque caecis Corporibus fugiunt e corpore*: *res* and *ratio* are likewise found with quite different meanings. 227 *lumina vitae* occurs again more than once; it is also used by Virgil. 228 *Redducit* always has this quantity in Lucr. and generally this spelling in AB: the same is true of *reccidere* which occurs thrice, *redducere* occurring four times: the ancient and sole ms. of the last 5 books of Livy has *redducit, redducendi, redducturum*, but *reductum*; Plautus and Terence always *redduco*, at least where the verse shews the quantity: comp. *reddo*: but Menaech. 520 *rĕcident*; whereas Ovid Propertius Juvenal (Virgil does not use the word) have *reccido*; but most hexameter and other poets *reduco*: the perf. *reppuli repperi rettuli reccidi* are of course necessarily long. 230 *ingenuei* is almost *sui*: comp. VI 613 *Adde suos fontis* of the sea: Auson. Mosell. 65 *sub ingenuis agitatae fontibus herbae*: Plaut. miles 632 unites *sua sibi ingenua indoles*, i.e. nativa. *externa* is the opposite of this, 'which come from without', *adventicia*: comp. Cic. de nat. deor. II 26 *Nec enim ille externus et adventicius habendus est tepor, sed ex intimis maris partibus agitatione excitatus*: Livy IV 30 7 *nec caelestes modo defuerunt aquae, sed terra quoque ingenito umore egens vix ad perennes suffecit amnes*: where *caelestes* and *ingenito* are contrasted, as *ingenuei* and *externa* here: comp. too Juv. III 20 *nec ingenuum violarent marmora tofum*, who was prob. thinking of Ov. met. III 160 *levibus tofis nativum duxerat arcum*. Sense and context so imperiously require *mare* to be the accus. after *supped.* that I now concede it, my attention having been directed to Cic. in Catil. II 25, *si omissis his rebus quibus nos suppeditamur, eget ille*; which Halm ad l. says is the sole instance in Latin of this constr. and which is confirmed by Arusianus Messius who quotes it in support of 'suppeditor hac re'. This constr. in Cicero and Lucr. may be an example of what was more

common in the older Latin; for Plautus, Terence etc. often have an accus. for a dat. after *indulgeo*, *inservio*, *parco*, *ignosco*, etc. as *te indulgebant*, *unum inservire amantem*: but probably II 568 *unde omnia suppeditantur*; 1167 *vix arvis suppeditati* is the same constr. *longe*: Livy XXV 12 9 *vomicamque quae gentium venit longe*, from a carmen of Marcius; Cic. ad Att. V 2 2 *cum Hortensius veniret.. tam longe*; Mela II 30 *Strymon.. amnis est longeque ortus*; Aen. X 843 *Adgnovit longe gemitum.* 231 *aeth. sid. pas.*: comp. V 524, which mentions this as one of several possible cases; though it seems rather stoical than epicurean: comp. too Virg. Aen. I 608 *polus dum sidera pascet.* 232 *debet*: this word Lucr. employs with singular fondness in a very peculiar sense: to denote that which follows either as a natural or a necessary consequence: he applies it to all things alike, animate and inanimate: II 1139 *Omnia debet enim.*

233 *consumpse*: *sumpse* seems to occur in Naevius' triphallus, fragm. comic. 97: Lucr. III 650 has *abstraxe*, V 1159 *protraxe*; Virgil *traxe*, Horace *surrexe*, Catullus *promisse*; many others, *dixe* and the like, are found in Plautus: *cognosse remosse cresse* in Lucr. are simpler contractions like *nosse*: I 987 *confluxet*: comp. *vixet extinxem* in Virgil, *erepsemus* in Horace; the abundance of such forms in Plautus and Terence and the general use of *faxo ausim* shew that they belonged to the language of common life. *dixti* is found even in Cicero: see Madv. de fin. II 10. *diesque*: see n. to 557: the argument too of this v. is there more fully enforced: comp. too Cic. pro Cael. 77 *iam aetas omnia, iam usus, iam dies mitigarit*; Livy XXII 39 12 *meliores...nos tempus diesque facit.* 235 *haec rerum summa* i.e. the whole *mundus*: after his wont he has just enumerated what goes on in the three portions, earth sea heaven: on *rerum summa* see n. to 1008. 240 *indupedita* of course agrees with *materies*: comp. 244: Lamb. here errs as well as Wak. 241 Madv. Cic. de fin. II 84 says that *satis esset causa leti*=letum satis efficeret, and that the gen. *leti* makes a difference: [see too Draeger hist. synt. I p. 416 § 3:] in the passage of Cicero Madv. and Baiter in his new ed. read *satis est tibi in te...praesidii* for *praesidium*: auctor ad Heren. at beg. *vix satis otium studio suppeditare possumus*, where Madvig would read *otii*; ad Att. XII 50 *si satis consilium quadam de re haberem*, where Lamb. reads *consilii*: he also refers to Ovid met. III 149 *Fortunamque dies habuit satis* and Virg. Aen. XI 366 *sat funera fusi Vidimus.* In all these passages *satis* appears to me to have much the same force as in Lucr. 'in sufficient measure'; as well as in Sen. Herc. Oet. 1829 *reliquiae auxilium dabunt*: *Erunt satis praesidia.* [242 *nulla*=*nullae res*: comp. Hor. ars 324 *nullius*; Ov. met. I 17 *nulli*; XV 242 *nullo.*] 245 *constant*=sunt, as so often in Lucr. 249 *corp. mat.* another term for his first-beginnings. 250 *pereunt*: the rains perish as rains; yet 262 *haud penitus pereunt*; but reappear in

other shapes. Comp. Virg. geor. II 325 *Tum pater omnipotens fecundis imbribus aether Coniugis in gremium laetae descendit et omnis Magnus alit magno commixtus corpore fetus*; and Aesch. frag. of Danaid. Ὄμβρος δ' ἀπ' εὐνάεντος οὐρανοῦ πεσὼν Ἔκυσε γαῖαν κ.τ.λ. which Lucr. may have had in view: see notes to parallel passage II 991 foll. and v 318 foll. From the Vedas to the pervigilium Veneris poets and philosophers love to celebrate this union of ether and earth, ether as the father descending in showers into the lap of mother earth. The notion naturally had birth in warm climates, such as India, where the excessive heat at stated periods seemed to bring the ether down in abundant rains which at once quickened all things: hence the Agni of the Rig-Veda cooperating with the mighty parents heaven and earth to shed abundant showers. This notion too has induced Lucr. here and elsewhere, where he speaks of *aetheriae nubes* and the like, to forget or suppress for a moment his calm cloudless unsullied ether, and confound it with this upper generator of heat and rain: the *semper innubilus aether* of III seems in VI *omnis in imbrem vertier*: other poets follow Lucr. and Virgil: Ov. met. I 269 *funduntur ab aethere nimbi*; fasti I 682 *aetheria spargite semen aqua*; III 286 *effusis aethera siccat aquis*; Sen. Hipp. 674 *omnis impulsus ruat Aether et atris nubibus condat diem*; Oed. 632 *nec parum pluvio aethere Satiata tellus*; [Val. Flacc. I 307 *si nubila duxerit aether.*] 'La peinture est renfermée dans un raisonnement' says Martha, p. 282, of vv. 250—264: his further remarks are eloquent and just.

252 *nitidae fruges* occurs five times: it seems to imply crops well-kept and so flourishing and good-looking: Cic. Ver. III 47 says *Quos ego campos antea collesque nitidissimos viridissimosque vidissem, hos ita vastatos nunc ac desertos videbam*; Virg. geor. I 153 *interque nitentia culta. fruges* in Lucr. either signifies grain-crops alone or includes leguminous products in contradistinction to fruits of trees etc. 253 Wakefield well observes that Virg. ecl. X 54 *Arboribus: crescent illae, crescetis amores*, imitates the language and rhythm of this verse, while the sense is quite different. Compare also with II 2, geor. I 158 *magnum alterius frustra spectabis acervum*; with II 32 and v 1395, geor. II 310 *Praesertim si tempestas*; with II 408 *et mala tactu*, geor. III 416 *aut mala tactu*; with III 232 *Tenuis enim quaedam...aura* and the various uses of *perlabitur* in Lucr., Aen. VII 646 *Ad nos vix tenuis famae perlabitur aura*; with IV 1065, geor. I 114 *Conlectum umorem*; VI 458 with geor. III 478 *coorta est Tempestas*: in each case the words are the same, the meaning is altogether dissimilar: comp. also Aen. XII 906 *vacuum per inane* said of the air; though Lucr. once, II 116, uses *per inane* himself in the same way. Such instances show how strongly this poem must have impressed itself on Virgil's mind. 256 *canere*=cantu resonare. Forc. and his followers cite but one instance at all similar, from the Aetna 297: comp. however Virg.

geor. II 328 *resonant avibus virgulta canoris.* With *videmus canere* comp. IV 598. 257 *pingui*: used as a subst. by Virg. geor. III 124 *denso pingui*: as well as catal. VII 4 *Scholasticorum natio madens pingui*: it often occurs in Pliny nat. hist. 258 *Corp. dep.*: Bentl. says 'scil. cum parturiunt': can he mean that *corpora* are the young of the cattle, as he reads in 257 *fetae*? of course Lucr. means merely what Virg. Aen. VII 108 does, *Corpora sub ramis deponunt*, or Hor. od. II 7 18 *fessum militia latus Depone*: Ov. met. I 300 *ponunt sua corpora phocae.* *can. lac. um.*: the two epithets are quite regular, as *lac. um.*=simply *lac* or *lactis umor*, and *candens* is an epith. ornans, as in γάλα λευκόν: comp. I 945 and IV 20 *suaviloquenti Carmine Pierio...Et quasi musaeo dulci...melle*; V 1194 *O genus infelix humanum*; VI 387 *fulgentia caelestia templa*: and Virgil's *toris genialibus altis, corpus exangue Hectoreum, sinusque crepantis Carbaseos*; Catullus' *lepidum novum libellum; horridamque Thraciam Propontida, trucemve Ponticum sinum*; Propertius' *pugnamque sinistram Cannensem*: comp. too II 342 *mutaeque natantes Squamigerum pecudes*; and see n. to V 13 *divina antiqua reperta*, where the instances are somewhat different. Lucr. is fond of this periphrastic use of *umor*: he has *umor aquae, aquai, aquarum, sudoris*, some of them repeatedly: *lacteus umor* occurs more than once in Ovid. 260 *Artubus*: this form is retained by our mss. in four other places: once only, V 1077, we find *artibus*: doubtless the *u* remained longer in this than in other words, to distinguish it from the dat. and abl. of *ars*: see Neue I p. 372—376 for the statements of the old grammarians. 261 *perculsa*: see n. to 13. 262 *videntur* i.e. perire. 263 *alid* Lucr. uses not unfrequently; *ali* the dat. sing. more than once, but *alis* never: Catullus has *alid*, and *alis* nom. 263 264 Lucr. is fond of this doctrine that the death of one thing is the birth of another and that the uniformity of nature is thereby maintained. We shall have to say more at II 70 of this theory as applied to the universe of things: as here applied to this world of ours it is hardly perhaps consistent with what is said 556, that the process of destruction is much quicker than that of construction. Elsewhere too he argues at great length and with much earnestness that this world is of quite recent formation, and again that it not only can but must and will be destroyed in a moment of time. What becomes then of this unvarying equality, at least thus unconditionally applied, *nec ullam Rem gigni* cet.? Lucr. doubtless had in his thoughts the old dogma of the physici, more than once asserted by Aristotle, as metaph. II 2 p. 994 b 5 ἡ θατέρου φθορὰ θατέρου ἐστὶ γένεσις.

265—328: doubt not what I say of first-beginnings, because they are not seen: many things in being you know by their effects, yet cannot see: winds work mischief in sky, on earth and sea; yet are not seen: they act by pressure just like rivers which are seen: smells heat cold sounds are not seen; yet have all body since they are in contact with sense: moisture leaves

clothes without being seen: metals stones wear away; things grow, and decay, as rocks from seabrine; yet the process of growth and decay is unseen in all. 265 *Nunc age*, a not unfrequent formula in Lucr. by which he bids his reader to give heed, when he is passing to a new question: it is used more than once in the same way by Virgil, and often by Manilius: Cicero has *age nunc*: comp. too Empedocles 248 Karsten Νῦν δ' ἄγ' ὅπως...τῶνδε κλύε and 182 Εἰ δ' ἄγε, νῦν τοι ἐγὼ λέξω, and 101 Ἀλλ' ἄγε μύθων κλῦθι, and 124. 270 *videri*=268 *cerni*: a sense common in Lucr., not very unusual in Cicero; as de off. III 38 *ibi cum palam eius anuli ad palmam converterat, a nullo videbatur, ipse autem omnia videbat; idem rursus videbatur, cum in locum anulum inverterat*: ib. I 14 he translates the ἐναργές κ.τ.λ. of Plato by *si oculis cerneretur*; de fin. II 52 by *si videretur*: Caes. de bell. civ. III 36 8 *ut simul Domitiani exercitus pulvis cerneretur et primi antecursores Scipionis viderentur.* 271 *portus*: the wind beats against them and prevents all ingress to ships; rendering them therefore more dangerous than the open sea. This so careful an observer as Lucr. would doubtless understand. [Elgin Courant, Dec. 22 1876: 'the steamer Tyne entering Shields harbour yesterday went ashore. All hands were lost...More shipping disasters are reported from Shields. The steamship Blenheim of Hartlepool, in entering the harbour, went against the end of the south pier and afterwards broke in two. Afterwards the steamer New Cornwall of Barnstaple, making for the harbour was overwhelmed by the sea and foundered, all hands being lost'.] 272 *ruit* used 289 and 292 in same sense: Plautus and Terence appear each to use it once and only once actively; Virgil more frequently. Virg. geor. III 197 has *arida differt Nubila.* 274 *montis supremos* is found in Virg. geor. IV 460. 275 *Silvifragis*: 305 *fluctifrago*: Lucr. seems the only classic who uses these words, which are both active. *perfurit Cum frem. saev. murm.* a striking tautology; unless indeed, as I sometimes think, the *pontus* of mss. can be defended, *saevit—pontus* being a clause apart and finishing the comparison in a way so often followed by Virgil; as geor. I. 334 *Nunc nemora ingenti vento, nunc litora plangunt*, which may indeed be a reminiscence of Lucr.: comp. too Hor. epod. 13 2 *nunc mare, nunc siluae Threicio Aquilone sonant.* *cum fremitu* or *fremitu*, *murmure* or *cum murmure*, all equally Latin: IV 539 *cum summost clamore profusus*; but VI 147 *magno clamore trucidet*; 1284 *ingenti clamore locabant*: Enn. ann. 477 *Cum magno strepitu Volcanum ventu' vegebat*; Plaut. Amphitr. 244 *maximo Cum clamore involant.* 277 *nimirum*=ne mirum=non mirum acc. to Donat. Ter. eun. 508 'solve *nimirum* [a proof by the way that he wrote it as one word] et fac *non est mirum*... nam *ni ne* significat et *ne non*. *ni* pro *ne* Vergilius, *laeti discrimine parvo Ni teneant* [and Lucr. he might have added: see n. to II 734]. *ne* pro *non* Plautus, *nevult* inquit pro *non vult*': but as *mirum ni*, *nisi*,

mirum est ni, *mira sunt ni* have much the same force in Plautus, Terence, Caecilius, etc., Ribbeck, Beitr. z. l. v. d. Lat. partik. p. 17, is prob. right in saying that *nimirum* = *ni* or *nisi est mirum*: Caecil. 254 *nomen virginis, nisi mirum est, deintegrabit.* Lucr. is peculiarly fond of this word: he generally employs it in drawing what he thinks a certain conclusion from what precedes. *corp. caeca*, as 295: sometimes he applies the phrase to his invisible first-beginnings; as 328 *Corporibus caecis* = 1110 *primordia caeca.* 278 *denique* often thus added to the last item in an enumeration without giving it any prominence over the others; as 435 *Augmine vel grandi vel parvo denique*, II 1081 *sic montivagum...Sic hominum...sic denique mutas Squamigerum* cet.; IV 783 *Si mare, si terrast cordi, si denique caelum*; V 434 *Nec mare nec caelum nec denique terra neque aer.* 279 *Verrunt*, a favourite metaphor which he uses five times. 280 *Nec rat. alia...Et cum*: II 414 *Neu simili...cum ...Et cum*; 418 *Neve...simili constare...qui...Et qui*; IV 544 *Nec simili ...Cum...Et validis...Cum*; V 1073 *non differre...ubi...Et...Et cum*; 1081 *alias...voces...Et quom*; III 1092 *Nec minus ille...et ille*: in most of these cases the *et* of comparison is followed by *c* or *qu* or a vowel: see Haupt obs. crit. p. 36, who shews that Lucr. like Virgil never has *ac* before *c g* or *qu* with one exception, VI 440 *simul ac gravidam*, as *simul ut* was not used by him: *simul ac* foll. by *c* is the sole exception to the rule in Catullus and Ovid: it is observed by Propertius: Livy often neglects it. 281 foll.: there are three similes in the Iliad, Δ 452, E 87, Λ 492, each of which, especially the two last, Lucr. may here have had in his mind: *ποταμῷ πλήθοντι ἐοικὼς Χειμάρρῳ ὅστ' ὦκα ῥέων ἐκέδασσε γεφύρας· Τὸν δ' οὔτ' ἄρ τε γέφυραι ἐεργμέναι ἰσχανόωσιν, Οὔτ' ἄρα ἕρκεα ἴσχει ἀλωάων ἐριθήλεων Ἐλθόντ' ἐξαπίνης, ὅτ' ἐπιβρίσῃ Διὸς ὄμβρος* and *πλήθων ποταμὸς πεδίονδε κάτεισιν Χειμάρρους κατ' ὄρεσφιν ὀπαζόμενος Διὸς ὄμβρῳ, Πολλὰς δὲ δρῦς ἀζαλέας πολλὰς δέ τε πεύκας Ἐσφέρεται.* Virg. Aen. XII 523 *ubi decursu rapido de montibus altis* cet. was thinking of 283; and so was Spenser, faerie queene II 11 18 *Like a great waterflood that tombling low From the high mountains* etc. 281 Lamb. joins *mollis* with *aquae*, but I think the usage of Lucr. requires it to agree rather with *natura*; as II 232 *corpus aquae naturaque tenvis Aeris*; V 148 *Tenvis enim natura deum*; II 646 *Omnis enim divom natura*, where see note. *natura aquae* = simply *aqua*; so *natura animi*, *deum*, and the like again and again: so that the relative may be referred to it, as well as to *flumine.* 284 *coniciens* is used in its first meaning also VI 731 *Nubila coniciunt in*; and so *coniectus* the particip. more than once. 287 *Molibus* are of course the piers of the bridges; and *grandia saxa* in 289 are the stones of these and the other parts of the bridges swept away by the flood. *validis cum viribus* occurs in Enn. ann. 301: Virg. Aen. V 368 has *vastis cum viribus*; Cic. Arat. 146 *funestum magnis cum viribus amnem*, which Lucr. may have

had in mind: 195 Cicero writes *validis viribus austrum* without *cum*. VI 73 *placida cum pace quietos*, 279 *ipse sua cum Mobilitate calescit* are like in principle; and VI 1233 *maesto cum corde iacebant*: Cicero in his Aratea quite revels in this use of *cum*: in the few hundred lines which remain I have counted 23 instances more or less similar to those quoted. 288 *dat stragem*: see n. to IV 41. *sub undis...volvit* is found in Aen. I 100. 289 *quicquid*, with *c*, = quicque: it is an archaism not uncommon in Lucr. who has *unum*, *primum*, *summum quicquid*: it is found in Plautus, and is not unknown to Cicero: see Madvig de fin. V 24: nor to Livy, as XXXVIII 17 13 *in sua quicquid sede*. For the constr. see note to 15: it = qua aliquid fluctibus obstat, id ruit amnis: comp. n. to 966 *quem quisque locum possedit*. With *qua quicquid* comp. V 733 *Qua fieri quicquid posset ratione*; III 787 and V 131 *ubi quicquid*: comp. too Aen. VII 400 *io matres, audite, ubi quaeque, Latinae*: Plaut. Bacch. 252 I would read *Istius hominis ubi fit quaeque* (*quaque* mss. *quomque* Lamb. Ritschl Fleckeisen) *mentio*: Livy IX 23 15 *qua potest quisque*; Sall. Iug. 44 5; 51 1 *ubi quemque periculum ceperat*; 60 1 *ubi quisque legatus aut tribunus curabat*; [Cat. 56 2 and 3: Plaut. Amph. 1064 *ubi quemque hominem aspexero...optruncabo in aedibus*; 1079 *Ubi quisque institerat, concidit strepitu*; asin. 244 *exobsecrabo ut quemque amicum videro.*] 291 *procumbit* is used of the wind in same sense VI 558. 293 Virg. Aen. VII 567 has *torto vertice torrens*, and Lucr. is purposely using terms common to rivers and winds. *vertice torto* and *rotanti turbine* seem to be the same thing; and the tautology is like that in 275. 296 *moribus*: Virg. geor. I 51 *Ventos et varium caeli praediscere morem*; which Pliny XVIII 206 thus expresses *quippe Vergilio iubente praedisci ventos ante omnia ac siderum mores.* 297 *aperto* the opposite to *caecus*.

300 *tuimur*: also *tuantur tuĕre* are found in Lucr. and *contuimur*: the older writers frequently form this verb and its compound acc. to this conjug.: comp. *cimus* above. 301 *Usur. oc.*: IV 975 *sensibus usurpare*. Plautus too has *neque oculis neque pedibus neque oculis usurpavi*: see Forc. 306 *eaedem*, *eădem* and *eodem* are found as dissyll. in Lucr.: *idem* (plur.) and *isdem* are always diss.; but *eădem eandem eundem*, where the vowel is short by nature, are always trisyll.: *eosdem easdem* do not occur in Lucr.: they might be either diss. or trisyll. *dispansae*: *dispessus* is also used by Lucr. *serescunt*: this passage is quoted by Nonius 175; and it seems to be the only known use of the word: *serenus* is clearly connected with it and Nonius adds 'inde Vergilius docte geor. I [461] *unde serenas Ventus agat nubes*', having just explained *serescit* by *siccatur*. 307 *umor umidus umecto* and *umerus* are rightly read in AB. 311—314 comp. Ov. ars I 473 *Ferreus adsiduo consumitur anulus usu. Interit adsidua vomer aduncus humo.* 311 *solis annis*, because the annus was made by the revolution of the sun: Varro de ling.

Lat. VI 8 'tempus a bruma ad brumam, dum sol redit, vocatur annus, quod ut parvi circuli anuli, sic magni dicebantur circites ani, unde annus'; but in Lucr. the coming together of *annis* and *Anulus* is quite accidental: V 644 *Quae volvunt magnos in magnis orbibus annos*, of stellar years. 312 *anulus*, not *ann.* *habendo* has not the same subject as the sentence: so Virg. geor. II 250 *lentescit habendo*; Lucil. XXX 132 Muell. *quod prosit habendo*: comp. IV 1102 *Nec satiare queunt spectando corpora coram*; 1068 *Ulcus enim vivescit et inveterascit alendo*; and Virgil's imitation, geor. III 454 *alitur vitium vivitque tegendo*: V 1369 *indulgendo blandeque colendo* of the earth; Plaut. asin. 222 *Bene salutando consuescunt, compellando blanditer, Ausculando*; Livy XXII 19 10 *raptimque omnia ac praepropere agendo...nautica ministeria impediuntur*; XXIX 2 1 *ne glisceret prima neglegendo bellum*; XLII 17 7 *se daturum, quod nec in dando nec datum ullo signo deprendi posset*; VIII 11 1 *praeferendo*; VII 2 6 *usurpando*; Ter. Phorm. 1034 *accusando*: [see Kuehnast Liv. syn. p. 20 21 and references, and Roby gramm. pt. II p. LXI foll.] 313 *Stilicidi*: Lach. in a masterly note shews that when a long vowel is followed by *ll*, one *l* is withdrawn when an *i* follows, if this *i* be not merely the mark of a case, as *villa villis*: thus *Messalla Messalina*; *mille milia*; *villa vilicus*; *stilla stilicidium*; for *stiria* shews that the *i* of *stilla* is long. According to this rule *Polio* is right, and Servius recognises both *Polio* and *Pollio*, and Πωλίων is the usual Greek form; but Roman usage seems to have declared for *Pollio*; in the new corpus inscr. Lat. vol. I *Pollio* is found 6 times, *Polio* once; in Mommsen's inscr. reg. Neapol. always *Pollio*; and so the mss. of Virgil; but Pal. and Med. fail in the four places where his name occurs; *Pollio* too the collated mss. of Horace; the Pith. of Juvenal VI 387 and VII 176 *Polio*, IX 7 *Pollio*; the palimpsest of Fronto twice *Polio*. Augustus in his res gestae has one striking violation of this law: he always writes *millia millibus milliens*; and one or other of these words occurs more than 20 times: he probably so spelt from some notion of consistency; comp. his *sĭmus* for *sumus*: *milites militare* etc. he spells in the usual way. While in a fine consular inscription of U. C. 622, corp. inscr. Lat. I 551, we have *miliarios* and twice *meilia*, ibid. 701 we find *millia*, 1012 *millibus*, shewing that the rule was not then quite fixed. 314 *occulte*: Forc. gives from Ovid an exactly similar use of the word. 315 *strata vi. Sax.* = stratas saxo vias: *strata* having the epithet *saxea* shews that Lucr. treated it almost as a subst.; even more harsh is VI 1283 *aliena rogorum extructa*. He uses this constr. more freely than most of the poets: see Conington to Aen. I 422: we had in 86 a very bold instance: *clausa domorum*, *extructa domorum*, and with a gen. sing. *vera viai*, *caerula caeli*, *sublima caeli* are some of many other examples. 316 *port. pr.*: Prof. Mayor refers me to Varro de ling. Lat. V 58 *quas Samothracia ante portas statuit duas virilis species aeneas, dei magni*: he

also points out that, Cic. Verr. IV 94, an *ex aere simulacrum* of Hercules in Agrigentum had its mouth and chin thus worn; and so Minuc. Felix describes Caecilius as kissing the lips of Serapis. Apul. met. XI 17 speaks of the people kissing the *vestigia* of Isis' silver statue, as to-day in St Peter's they kiss the toe of the bronze statue of St Peter. It may be presumed then that the Romans used the right hand of their statues, as Pliny says the Greeks used the chin. 318 the meaning is by the touch of the great numbers who in passing kiss: the words rather imply 'of those who often kiss': but it comes in the end to the same thing. 321 *praeclusit*: this verb he uses V 373 in its literal sense of shutting the door against. Prof. Conington and Mr N. P. Howard have independently pointed out to me that this v. is quite sound and requires only to be rightly understood: *videndi* is gen. after *natura*: Conington compares Persius V 101 *natura medendi.* *speciem* = visum: comp. IV 236, 242, V 707, 724: there indeed, as more than once in Vitruvius, it means *oculi visum*; here it means *visum rerum externarum.* 324 Cic. de nat. deor. II 142 *acies ipsa qua cernimus, quae pupula vocatur.* *contenta* is well explained by IV 802 and 809. 325 is rightly joined by Lamb. with what follows: Lach. wrongly connects it with what precedes. 326 *mare quae inpendent*: comp. Ter. Phorm. 180 *tanta te inpendent mala*; Lucilius *quae res me inpendet*, where Festus p. 161 9 says *me* is for *mihi*: IV 568 *non auris incidit ipsas*; where see note: so V 608 *accidere* has an accus. [Comp. Lucil. XXVI 51 *pectus inrigarier.*] *vesco*: Ribbeck, Lat. Partik. p. 10, seems rightly to make *vescus* = *ve escus*: it is he says both active and passive, 'nibbling' and 'nibbled off': he who eats without appetite takes little bites; hence *vescus* = fastidiosus, Paulus Festi p. 368, Gell. XVI 5 7, Nonius p. 186, Labb. gloss. *vescus*, ὀλιγόσιτος, ὀλιγοδεής, προσκορής: hence in Lucr. it means 'nibbling at and slowly eating away the rocks'. Again it is passive in Virgil's *vescum papaver* and *vescas salicum frondes*; and thus we can easily understand Afran. 315 *At puer est vescis inbecillus viribus*; Ovid fasti III 446 *vescaque parva vocant*, Pliny VII 81 *corpore vesco*, and Paulus Festi p. 379 '*vesculi* male curati et graciles homines'. 327 *possis* = precisely *potest* of 324: II 763 *possis*, 850 *Quoad licet ac possis*; where I now see Lach. to be wrong in reading *potis es*: see n. to II 41 *Cum videas*, and Madv. Lat. gram. 370 for this use of the indefinite 2nd pers. sing. conj. or potent.: the first ex. he quotes is like our passage in which *nec possis* = nec possumus: I 515 *Si non relinquas*; II 4 *quibus careas*; 36 *si iacteris*; 1090 *si teneas*; 220 *tantum quod dicere possis*; 763 and 768 *possis*; III 213 *cernas*; 370, 856, 960, 1024 *possis*; IV 319 320 *credas, recedas*; 325 *pergas*; 572 *cum videas, possis*; 957 *quem capias*; 1070 foll. *conturbes, cures, possis*; 1231 *possis*; VI 113 *possis*; 168 *videas*; 706 *Conspicias*; 708 *possis*; 1163, 1170 and 1257 *posses*; 1268 and V 1332 *videres.* 328 *Corp. caec.*: see n. to 277; and comp. Manil. I 131

Caecaque materies caelum perfecit et orbem, of the epicurean atoms. *gerit res*: the metaphor is taken from the government of a state: *res geruntur*, *geri res* and the like occur frequently in Lucr. always more or less with the same force: comp. Cic. de nat. deor. II 82 where the stoic Balbus says *nos cum dicimus natura constare administrarique mundum.*

329—369: but there is void as well as body in things; else there could be no motion, no birth, no growth: the hardest things can be penetrated; and therefore have void in them: again things of equal size are not all of equal weight, only because one contains more or less void than another. 329 the whole universe of things is not solid dense body; there is also void in things. *corporea natura*=corpore, as *animi natura*, *mundi natura*=animus, mundus, etc. *stipata*, a favourite word to express what is close packed, pressed, rammed together: Wak. well compares συμπιλεῖσθαι used in the same sense by Aristot. phys. IV 9 near beg. 330 *in rebus*, things in being, things formed, in contradistinction to the atoms: see n. to 419: Persius' parody I 1 *o quantum est in rebus inane* shews Lucretius' expression was in vulgar use: comp. also Pers. III 83 *gigni De nihilo nihil, in nihilum nil posse reverti.* *inane* his most general term for void, used as a subst.; the τὸ κενόν of the Greeks: he also uses *vacuum*, *vacuum inane*, *inane vacansque* and the like: *spatium*, *omne quod est spatium*, *vacuum spatium*, *locus*, *locus ac spatium* and the like express space in its extension, wherein things are and through which atoms move,=χώρα, τόπος: it is *intactile* or *manet intactum*; ἀναφὴς φύσις, as it is defined by Epicurus. 331 *Quod cognosse*=a nomin. subst. as shewn by *Nec sinet*: this use of the infin. is common in Lucr. as III 67, 354, 731, IV 765, 836 foll. 843 foll. V 979, 1118, 1250, 1297 foll. 1379, 1406, 1407, VI 380, 415, 416: Lucr. also uses the infin. for an accus. subst.: see n. to 418. 332 *quaerere*, as II 10 *viam palantis quaerere vitae*; and our 'to be to seek'. 333 *summa rerum*, properly the whole sum, universe of things, while *haec rerum summa* is this our single world, as explained in n. to 235; comp. n. to 1008 on *rer. sum.* 334: see notes 1: I cannot conceive this v. to be genuine; it may have been interpolated by some one who did not see that 335, as well as 331, referred back to 330. 336 *officium*, *Officere*: one of his favourite plays on words, united with alliteration *obstare* .. *omni*...*Omnibus*; on which comp. what is said above p. 15: the words are simple homonymes, as in Cic. pro Sex. Rosc. 112 *cur mihi te offers ac meis commodis officio simulato officis et obstas.* 340 *subl. caeli*: see n. to 315. *sublima*: Enn. trag. 5 seems to have *sublimas*, and Accius *sublimo* and *sublimă*; Sall. frag. *sublima nebula*; Sen. Med. 1026 *sublimi aetheris*, and the antiquarian Apuleius met. IV 23 *sublimis volatibus.* [So Lucil. VIII 1 has *gracila*; see Mueller's note.] Lucr. uses more than once the adv. *sublime*, but never the adj. *sublimis*: II 845 *sterila*: II 621 *violenti* A Nicc. *violentis* B; V 1231 *violento* A Nicc. *violenti* B:

ex animus imbecillus hilarus inermus are the only forms he uses. 341 *mul. mod. mul.* a favourite formula of his for the reasons mentioned in n. to 336. 343 *sollicito*, an epithet he thrice gives to *motus*: Virgil applies it to *mare*, Ovid to *ratis*: Lucr. uses the verb more than once in similar senses. *priv. car.* seems very tautological: comp. 275 and 293. 345 whereas he assumes the inherent motion of his atoms as the first requisite for the production of things. 346 *solidus* is his technical word for what is perfectly solid and impenetrable, that is his first-beginnings; in this sense no *res* can be *solida*; only apparently so: all *res* or things in being are *rarae*, that is have a mixture of void in them. 349 *flent*: Virgil *inlacrimat*, Ovid *lacrimavit ebur*; for which Seneca Thyestes 702 has *flevit in templis ebur*: but in Lucr. of course there is no secondary implying of real weeping. 352 *totas* agrees with *arbores* implied in *arbusta* which, as is observed at 187, he always uses for the former: quite similar is VI 188 *Quam sint lata magis quam sursum extructa*, referring to *nubibus*; and on the other hand 215 *eas*, though 214 *nubila caeli* is the immediate antecedent, not *nubes*: 757 *quadripedes...ut si sint mactata*: for which Lach. unskilfully reads *fit mactatu'*; and not unlike is IV 933 *aeriis auris...eius*, where see note. 355 *rigidum* seems to personify cold as if it were stiff like frost. 356 *qua*: III 498 *Qua quasi consuerunt*; 736 *qua possint via nulla videtur*; Virg. geor. I 90 *vias et, Spiramenta, qua*; Aen. V 590 *Mille viis, qua*. 358 *alias aliis...res rebus*: he seeks by the collocation of the words to increase the force of the antithesis: comp. 816 *variis variae res rebus*: 876 *omnibus omnis Res . . rebus*; II 1166 *tempora temporibus praesentia confert Praeteritis*, and VI 1085 *Ut cava conveniant plenis haec illius illa Huiusque*; Livy XXXIX 16 4 *nunc illi vos singuli universos contionantes timent.* 360 *glŏmere*; but *glŏmerari glŏmerata glŏmeramen*; and Horace *Ut vinosa glŏmus*: Lach. gives many other instances of varying quantity; thus Lucr. and Plautus *cōturnices*, Ovid and Juvenal *cŏturnices*; Lucr. etc. *vĭctus*, Hor. *vĭctis*; Lucr. *văcillo* and *vaccillo*: see n. to II 452; III 504. 363 *inanis* is of course the gen. of *inane*, as 365: comp. 517 *inane rerum* which most editors causelessly alter: *natura inanis* therefore is like *natura animi*, *aquae* etc. 367 *Dedicat* used by Lucr. three times and always in this sense: comp. *indicare*: it is synon. with *declarat* in 365: *Accius* 78 *te esse Alcmaeonis fratrem factis dedicat.* With these vv. comp. what Theophr. περὶ αἰσθησ. 61 says of Democritus, βαρὺ μὲν οὖν καὶ κοῦφον τῷ μεγέθει διαιρεῖ Δημόκριτος in his ἄμικτα or atoms. οὐ μὴν ἀλλ' ἔν γε τοῖς μικτοῖς κουφότερον ἂν εἶναι τὸ πλέον ἔχον κενόν, βαρύτερον δὲ τὸ ἔλαττον, and comp. the de caelo IV 2. 368 *Est* emphatic, 'exists'.

370—397: some falsely maintain that motion may take place thus: a fish for example advances, because the water it displaces goes into the space which it leaves. But without void how can water begin to give

place, that the fish may begin to advance? Again two bodies in contact start asunder: there must be void between the two at all events until the air has filled this space: if you say the air condenses when the bodies are together, I assert that air cannot so condense; and if it could, it could not thus contract without void. 370 it is not easy to say whether *illud* is nom. to *possit* or accus. after *praecurrere*: whichever it be, the other is understood. *praecurrere*: the metaph. is obvious: to run before a thing, and so meet it by anticipation. 372 *squamigeris*: 378 *squamigeri* i.e. pisces: prob. also 162 *Squamigerum*: see n. there; and comp. the graphic *pennipotentum* for birds; and 887 *lanigerae*=oves. 377 *falsa totum*=prorsus falsa, as N. P. Howard observes: so III 686 *totum contra*; IV 1088 *contra totum*. This adverbial use of *totus* is very common in idiomatic Latin, as in Cicero's letters to Atticus: of very many instances which I have collected take the following: IX 2 A, 1 *repudiari se totum...putabit*; IX 10 3 *alia res nunc tota est*; X 12 1 *Reginus erat totus noster*; XIII 21 3 *est enim verbum totum nauticum*; XV 1 2 *totum me futurum suum*; XVI 5 2 *sic enim commutatus est totus*; [Cic. epist. III 9 at end *meque totum et mea et meos commendatos habebis*; V 20 2 *totum enim scribam meum tibi tradidi*; VII 33 2 *me totum in litteras abdere*; VIII 4 2 *totus* (Caelius); VIII 8 10 *se totum* (Caelius); IX 16 8 *quam totam sustuli*; XI 29 2 *totum te contulisti*; XVI 12 6 *ut totum te susciperet*; ad Q. fr. II 10 (12) 3 *totum me amplexatur*, 4 *totum sibi aqua madidum redditum esse*; Sueton. Caes. 46 *villam... quia non tota ad animum ei responderat, totam diruisse*; Sen. rhet. suas. II 17 *totus Xerses meus erit*; controv. I 7 16 *latro totum se ab istis removit coloribus.*] *omnis* is used in the same way: see n. to II 53: and *nullus* 'not at all': Catul. 8 14 *cum rogaberis nulla*: [Livy XXIV 36 8 *postquam ea nulla contigerat*; comp. VIII 35 4 *quae in discrimine fuerunt, an ulla post hanc diem essent*:] Cic. ad Att. XI 17 1 *consilium quod capi nullum potest*; 24 4 *Philotimus...nullus venit*; XV 22 *ab armisque nullus discederet*: so Lucr. himself I 427 *Si nullum foret*: and often in Plautus and Terence. 383 *init. movendi*: *initum motus* occurs II 269 III 271: this use of *initus* for *initium* seems peculiar to Lucr. 384 *de* is explained 'after': perhaps it expresses 'at once from a state of': Faber quotes Plaut. most. 697 *Non bonust somnus de prandio* and Aen. II 662 *Iamque aderit multo Priami de sanguine Pyrrhus*: comp. also the phrase *diem de die differre*, and Cic. ad Att. XII 3 1 *velim scire hodiene statim de auctione, et (aut) quo die venias*: somewhat like is VI 290 *Quo de concussu.* 385 *cita*=cito: Plaut. Amph. 1115 *Citus e cunis exilit*, 1127 *pergunt ad cunas citi*: for other instances see Freund lex. s. v. 2. 386 *possidat*: is this a ἅπαξ λεγόμενον? lexicons give no other genuine instance of its use. 389 *prim. quem.* i.e. each part successively one after the other: comp. Cic. de invent. I 33 *ut et prima quaeque pars, ut exposita est in partitione, sic ordine transi-*

gatur et omnibus explicatis peroratum sit...et ad primam quamque partem primum accessit et omnibus absolutis finem dicendi fecit; auctor ad Heren. III 37 *ut identidem primos quosque locos imaginum renovandarum causa animo pervagemus*; Livy XLII 32 7 *cum tribuni militum, qui centuriones essent, primum quemque citarent*: and so V 291 *primum iactum fulgoris quemque perire*: also 264 *primum quicquid aquai*, 284 *primum quicquid fulgoris*, 304 *primum quicquid flammarum*, Lucretius loving the archaism *quicquid* for *quicque*, as has been said above. 392 *id fieri*, i.e. that what has been described takes place, because the air is able to condense itself, and so also to expand where necessary: the subj. shewing it was the erroneous judgment of the thinker, as *quia linquant* in 383: Creech argues that some vss. are lost here; but I cannot gather from his note that he had any clear conception of how he meant the lacuna to be filled up. Lucr. is curt and elliptical because he would not I think have found it easy to state fully what seemed to him an absurdity. The power of the air in 392 to condense implied thereby the power of expanding; and 395 seems to me distinctly to prove that 392 contains the gist of the argument: they assert that the air condenses, but it cannot condense without vacuum: a vacuum is formed where it did not exist before, i.e. between the two bodies which have separated: a vacuum is filled which existed before, i.e. somewhere on the outer sides of the two bodies. 392 *condenseat* and 395 *denserier*: Lucr. appears only to know the 2nd conjug.: see notes 1 to V 491. 396 *si iam posset*: see n. to 968. 397 *trahere* neut. as VI 1190 *nervi trahere*: see n. to VI 595: perhaps in our passage Lucr. means to imply the contraction would have taken place without apparent cause. *part. cond. in un.* repeated III 534 *ipsam se posse per artus Introsum trahere et partis conducere in unum*: I 650 *conductis partibus*: which seems to prove that *trahere* here = *se trahere*.

398—417: much more might I say; but a keen intellect can now by itself pursue the question farther: if however you demur, I have such store of arguments in reserve, that our life will come to an end sooner than they. 398 Virg. ecl. IX 56 *Causando nostros in longum ducis amores.* 400 *possum*: Virg. geor. I 176 *Possum multa tibi veterum praecepta referre*; Cic. pro Caelio 53 *possum dicere...possum etiam illa... perquirere...possum omnes latebras suspicionum peragrare dicendo.. sed haec...*; pro Sestio 7 *possum multa dicere de.. sed...*; in Verr. (II) I 125 *possum sexcenta decreta perferre...verum...*: the usage is very common, analogous with that of *poteram*, *potui*, etc. in conditional sentences. 401 *conradere* is twice used in VI in its literal sense. 402 *sagaci*: see n. to 50: the metaph. is kept up in *vestigia*; and the expressions naturally lead to the simile: comp. *sagax nasum* of Plautus, *nare sagaci* of Ennius. 404 *montivagae* agrees with *ferai*, as shewn by II 597 and 1081: Soph. Phil. 943 *θῆρ' ὀρειβάτην.* 405 *quietes*: I find no other instance of the word in this sense; but Cic. de off. I 103 and Sall. Cat.

use it in the plur. 406 *instit. vestigia*: so Virgil *insiste viam, insistere limen*, [and Aen. XI 573 *vestigia plantis Institerat*;] and Plaut. capt. 794 *omnes itinera insistant sua*: the constr. is common enough; for the quantity of *instit.* comp. IV 975 *destiterunt*, V 415 *Constiterunt*: he uses also *desierunt, exierunt, transtulerunt, dididerunt, excierunt, occiderunt, deciderunt, inciderunt, prodiderunt*; VI 4 *dedĕrunt*, V 474 and elsewhere *fuĕrunt* which, like Virgil's *tulĕrunt*, shew that the quantity does not arise from the mere necessity of the metre; and moreover this shortening is not unknown to Plautus and Terence: see Wagner, Ter. eun. 20. As we find *potuĕrunt* twice in Laberius; *sumpsĕrunt* in a popular v. ap. Suet. Caes. 80; and as *ĕ* is common in Phaedrus, it must always have been a familiar pronunciation. 408 *latebras*, Cic. pro Caelio 53 *omnes latebras suspicionum*. 409 *insinuare*: for syntax see n. to 116: V 73 the constr. is the same. 410 *pigraris*: this rare verb occurs twice in the fragments of Accius. 411 *de plano, e plano, ex aequo loco* are opposed to *pro tribunali* or *ex loco superiore*: Cicero several times uses *ex aequo loco* in this sense; and comp. Sueton. III 33 *iudicesque aut e plano aut e quaesitoris tribunali...admonebat*: Brissonius de verb. signif. s. v. *planus* cites Paull. recep. sent. V 16 14 *custodiae non solum pro tribunali sed et de plano audiri possunt*: it implies therefore an off-hand decision given anywhere in a simple case, in contradistinction to a more formal and deliberate judgment from the bench. Lucr. means to say that he needs no time for consideration; so sure is he of his case. corp. inscr. I 198, 65 and 66, we have twice *ubei de plano recte legi possitur*; ib. 206, 16 *propositum habeto u d p r l p*; Orell. inscr. 775 *proponi in publico unde de plano recte legi posset*; Plin. paneg. 71 *devexus quidem in planum et quasi unus ex gratulantibus*. 412 413: comp. Prop. V (IV) 1 59 *exiguo quodcunque e pectore rivi Fluxerit*. *haustus e font.*: Hor. epist. I 3 10 perhaps refers to Lucr.: *Pindarici fontis qui non expalluit haustus*. *e font. de pect.* in one sentence: IV 694 *Ex alto quia vix emittitur ex re*; VI 1012 *ex elementis..e ferro* and n. there; II 447 *In quo iam genere in primis*; IV 97; VI 721: [so *deductis...in locupletissimas urbes in hiberna legionibus*.] 413 *meo diti de pect.*: this use of the poss. pron. with an adj. seems an imitation of Ennius' antique manner, also imitated by Virgil, as *tuo cum flumine sancto* for instance: see n. to IV 394 *suo corpore claro*. Comp. Hor. epist. II 2 120 *Vemens et liquidus puroque simillimus amni Fundet opes Latiumque beabit divite lingua*; Hor. applying *dives* to the *lingua*, which is supplied by the *pectus*; the heart being the seat of the intellect according to Lucr. and most ancient philosophers: 731 *Carmina quin etiam divini pectoris eius*; V 1 *pollenti pectore carmen Condere*: comp. too Cic. de consul. suo 74 *Fuderunt claras fecundi pectoris artis*; Ov. trist. III 7 (8) 43 *nil non mortale tenemus Pectoris exceptis ingeniique bonis*; V 12 2 *Ne pereant turpi pectora nostra situ*=21 *ingenium longa rubigine laesum Torpet*.

diti: on the other hand v 1115 *Divitioris*: he nowhere else uses either form. 414 *tarda* surely agrees with *senectus*: see n. to v 1414. 415 *vit. cl.*: this metaph. he twice repeats, III 396 *magis est animus vitai claustra coercens*; VI 1153 *vitai claustra lababant*: comp. too Cicero's words *cum ego claustra nobilitatis refregissem.* The words imply those bars and defences which have to be forced and broken open before body and soul can be severed and life destroyed.

418—448: all nature then consists of body, and void in which body moves: deny the existence of body, you take away the foundation on which rests all reasoning about abstruse things: without void no motion is possible as I have just shewn. There is no third nature distinct from these two: if a thing can touch or be touched, it is of the class of body; if it cannot, of void: neither sense nor reason can grasp any third class. 418 *repet. pertexere*: VI 936 *repetam commemorare*, the same constr.: in both cases the inf. is for the accus. He uses the inf. for a subst. in the nomin. often: see n. to 331: sometimes for the accus. as IV 245 *internoscere curat*; V 1186 *perfugium sibi habebant omnia divis Tradere*; VI 68 *remittis Dis indigna putare*; 1227 *quod ali dederat vitalis aeris auras Volvere in ore licere et caeli templa tueri*, where a second infin. depends on the first used as an accus. subst.: *repet.* then has precisely the force it has Ovid met. III 151 *Propositum repetamus opus*, and ars III 747 *Sed repetamus opus*: the metaph. in *pertexere* is obvious: VI 42 *inceptum pergam pertexere dictis.* 419 For this *igitur* see Ussing to Plaut. Amph. 207. It is more than once put by Lucr. in the apodosis and has misled editors: IV 199—204 *si, quae...Quid quae sunt igitur*; 862—865 *quae quia sunt...His igitur rebus rarescit*: in both which passages Lach. has gone wrong; as the older editors have in the present one: comp. also IV 513—520 *Denique ut...Sic igitur ratio*; and V 260 *Ergo.* Sometimes too Lucr. places *igitur* late in the sentence; II 678, where the partic. = a protasis, it is the 7th: VI 1246 *ergo* comes 5th, II 569 *itaque* 5th in the sentence, IV 705 4th: VI 1277 *enim* is the 9th word; I 219 and VI 701 the 5th in the sentence; it often comes fourth and third: not unlike is his carelessness with *que* and *quoque*; see n. to II 1050. *per se* manifestly belongs to *ut est*, not to *constitit* with which Lach. joins it: *ut est* has no force alone, and the assertion would contradict Epicurus: comp. Cic. de nat. deor. II 82 *sunt autem qui omnia naturae nomine appellant, ut Epicurus qui ita dividit, omnium quae sint naturam esse corpora et inane quaeque his accidant*; in precise conformity with which Lucr. says 445 *tertia per se Nulla potest* cet.: see too 422 440 and 459 *Tempus item per se non est* and 466 and 479: from all which it is clear Lucr. does not deny that 'accidents' are, but denies that they exist by themselves, *per se.* See too Epicurus' own words in Diog. Laert. X 68 οὔθ' ὡς καθ' ἑαυτάς εἰσι φύσεις [τὰ σχήματα κ.τ.λ.] δοξαστέον, and those cited at 445, which Lucr. almost translates.

419 *duabus In rebus*: 449 *duabus Rebus*: 503 *duarum rerum*: Lucr. seems to depart here from his ordinary use of the word *res* which occurs many hundred times in his poem. Elsewhere it has one of its numerous abstract meanings; or denotes things in being opposed to the first-beginnings out of which things in being are formed. But here too it has almost an abstract meaning, and denotes the general conception of body and void; which he expresses sometimes by *natura*. 420 *Constitit*=ἕστηκε, *stat*, or *constat*, as often in Latin: III 177 *animus quali sit corpore et unde Constiterit*; Seneca suasor. 1 2 *ultra Liberi patris tropaea constitimus*; 9 *illa demum est magna felicitas quae arbitrio suo constitit*; Aen. III 679 *quales cum vertice celso Aeriae quercus aut coniferae cyparissi Constiterunt*; Ov. ars II 478 *Constiterant* (=stabant) *uno femina virque loco*; [Caes. bell. G. VII 3 1 and 42 5 *qui negotiandi causa ibi constiterant*; 49 3 *ubi constiterat, eventum pugnae expectabat*;] Hor. od. I 9 *Vides ut alta stet nive candidum Soracte...geluque Flumina constiterint acuto*; Sen. Herc. Oet. 678 *Patrioque puer constitit axe*; Cic. ad fam. VII 17 1 *iam videris certa aliqua in sententia constitisse*; ad Att. VIII 11 1 *levatur enim omnis cura, cum aut constitit consilium aut cogitando nihil explicatur*: it is worth noting that Nonius p. 256 quotes Cic. de fin. V 86 thus 'omnis auctoritas philosophiae *constitit* in beata vita comparanda': Cicero's mss. *consistit*; and the two words are synon. Often as he uses the words, Lucr. never has *in* after *consisto* or *consto*, except in this place: but lexicons give many instances of *in* after *consisto*; and Caes. bel. civ. III 89 3 and Nepos Attic. 14 3 have *constare in*. See Draeger hist. synt. I p. 515 § 237. *corpora* has here its most extended sense: comp. 483: it includes all *corpus*, whether *corpora prima* or *res*: so Epic. himself in Plut. adv. Colot. 13 τὴν τῶν ὄντων φύσιν σώματα εἶναι καὶ κενόν. 422 *comm. sensus*: comp. Epic. in Diog. Laert. X 39 τὰ σώματα ὡς ἔστιν αὐτὴ ἡ αἴσθησις ἐπὶ πάντων μαρτυρεῖ, καθ' ἣν ἀναγκαῖον τὸ ἄδηλον τῷ λογισμῷ τεκμαίρεσθαι: *communis sensus* here has much the same force as *naturalis sensus* the sense given by nature to all sane men: Arist. met. I 1 p. 981 b 13 εἰκὸς τὸν ὁποιανοῦν εὑρόντα τέχνην παρὰ τὰς κοινὰς αἰσθήσεις θαυμάζεσθαι ὑπὸ τῶν ἀνθρώπων. Cicero is fond of using it with the same meaning, whether in the sing. as Lucr. and Epicurus l. l.: pro Planc. 31 'valeret, inquam, communi sensu omnium et dulcissima commendatione naturae'; de orat. II 68 'in sensu hominum communi, in natura, in moribus': or in the plur. as Aristotle l. l.: thus pro Cluent. 17 'hoc quod in communibus hominum sensibus atque in ipsa natura positum atque infixum est'; de orat. III 195 'quod ea sunt in communibus infixa sensibus nec earum rerum quemquam funditus natura esse voluit expertem'; passages shewing how nearly Cicero connected it with nature. But de orat. I 12 'a vulgari genere orationis atque a consuetudine communis sensus abhorrere'; pro Planc. 34 'communis ille sensus in aliis

fortasse latuit cet.', and in Horace Seneca Quintilian and Juvenal the expression rather denotes 'an acquired perception or feeling of the common duties and proprieties expected from each member of society etc.' quoted from Sir W. Hamilton by Mayor to Juv. VIII 73; though the two senses sometimes run into one another. 423 *cui*, as N. P. Howard says, depends on *fides*—cui fides adhibita: Livy III 10 6 *cui rei priore anno fides non fuerat*; Aen. III 69 *ubi prima fides pelago*; Aetna 516 *figulos huic esse fidem*; Ov. her. 17 (18) 119 *Siqua fides vero est*; am. II 2 38 *In verum falso crimine deme fidem.* 426 foll.: Lucr. again closely follows Epic. l. l. 40 εἰ μὴ ἦν ὃ κενὸν καὶ χώραν καὶ ἀναφῆ φύσιν ὀνομάζομεν, οὐκ ἂν εἶχε τὰ σώματα ὅπου ἦν οὐδὲ δι' οὗ ἐκινεῖτο, καθάπερ φαίνεται κινοῦμενα. 427 *si nullum foret*: see n. to 377. 429 *supera*: 370 foll.: which shew Lamb. and others to be wrong in reading *quaquam* in 428: 421 we have *qua diversa moventur*; but *moveri* and *meare* are not the same; and Lucr. manifestly refers to 378 *Nam* quo *squamigeri poterunt procedere tandem, Ni spatium dederint latices? concedere porro Quo poterunt undae,* cet.: *meare*=procedere et concedere.

430—482: doubtless he dwells at such length and with such emphasis on this argument, because the stoics taught that all states qualities virtues etc. were body: take among many passages what Chrysippus says in Plut. de repugn. stoic. 43 p. 1053 F οὐδὲν ἄλλο τὰς ἕξεις πλὴν ἀέρας εἶναι, φησίν· ὑπὸ τούτων γὰρ συνέχεται τὰ σώματα· καὶ τοῦ ποιὸν ἕκαστον εἶναι τῶν ἕξει συνεχομένων αὐτὸς ὁ συνέχων ἀήρ ἐστιν, ὃν σκληρότητα μὲν ἐν σιδήρῳ κ.τ.λ. and Sen. epist. 117 7 *quod accidit alicui, utrum extra id cui accidit est, an in eo cui accidit? si in eo est cui accidit, tam corpus est quam illud cui accidit. nihil enim accidere sine tactu potest: quod tangit, corpus est. si extra est, posteaquam acciderat, recessit. quod recessit, motum habet. quod motum habet, corpus est.* 432 *Quod*: see n. to III 94 *animum, mentem quam.* *tert. numero*: this redundant use of *numero* is sufficiently illustrated by Forc. s.v. 435 *Augmine*, a word often used by Lucr. and only by him and his constant imitator Arnobius: so VI 614 *adaugmen*: *momen* too seems peculiar to him and his imitators, for *momentum*; he also uses *fragmina* more than once: *glomeramen frustramen vexamen clinamen* too he alone of classical writers employs. *dum sit* i.e. dummodo sit. 436 *Corp. num.*: the lexicons cite from Cicero and Caesar *numerus vini, frumenti, olei* and the like; Livy also has *magnum frumenti numerum*; *signati argenti magnum numerum*; Cic. pro Cluent. 87 joins *numerus* and *summa*, as here: *cum ipsa pecunia... numero ac summa sua...ostendat.* *sequetur*: will go to make up the sum, *explere summam.* 437 *intactile*, another ἅπαξ λεγ. by which he translates the ἀναφής of Epicurus. 438 *meantem*, a favourite word of Lucr. in its proper sense of passing to and fro. 439 *vac. in.* a striking pleonasm often repeated; just below he has *inane vacansque*: 523 we find even *spatium vacuum inane.* 440 *faciet quid* used of

course in the technical sense of the Greek ποιήσει τι: *fungi* peculiar to Lucr. both in the technical sense as here and 443, and in the common sense, as III 168 734 V 358, of πάσχειν. 441 *ipsum* on its part in contrast to *aliis agentibus.* 442 *erit, ut possunt* of mss. I now think is right: see n. to II 901 *ut debent.* [Comp. also II 112 *Cuius, uti memoro, rei*, and Plaut. Amph. cited there; also asin. 28 *ut ipse scibo te faciam ut scias* (= talia qualia ipse scibo); Ter. Phor. 224 *Meministin, olim ut fuerit vestra oratio* (= qualis fuerit); Juv. XIII 46 *nec turba deorum Talis ut est hodie*; and perhaps Cic. pro Sex. Rosc. 33 *aiunt hominem, ut erat furiosus, respondisse*, i.e. quo erat furore: see Madv. gramm. 444 a anm. 4.] 443 Epic. in Diog. Laert. X 67 τὸ κενὸν οὔτε ποιῆσαι οὔτε παθεῖν δύναται, ἀλλὰ κίνησιν μόνον δι' ἑαυτοῦ τοῖς σώμασι παρέχεται. 445—450 comp. Epic. ibid. 40 παρὰ δὲ ταῦτα οὐθὲν ἐπινοηθῆναι δύναται οὔτε περιληπτῶς οὔτε ἀναλόγως τοῖς περιληπτοῖς, ὡς τὰ καθ' ὅλας φύσεις λαμβανόμενα καὶ μὴ ὡς τὰ τούτων συμπτώματα ἢ συμβεβηκότα λεγόμενα: the τὰ κ. ὅλ. φύσ. λαμ. = *omnis ut est per se natura* of 419; φύσεις being applied to body and void alike by the school of Democritus and Epicurus. 447 448 might be all expressed by οὔτ' αἰσθητὸν οὔτε νοητόν. 448 *apisci*: so IV 1235 *apisci contagia*, and V 808 *terram radicibus apti.*

449—482: all other things are either inseparable properties or accidents of matter or void: time also exists not by itself: from the things that go on follows the feeling of past present and future: the actions done at the siege of Troy for instance did not exist by themselves, but were mere accidents of the men there or the places there: without body and space nothing which there happened could have happened. 449 *cluent* is almost the same as *sunt*, as often in Lucr.: 'all things which have a name, which exist'. *coniuncta* and *eventa* appear to have been devised by Lucr. himself to distinguish the two kinds of συμβεβηκότα or *accidentia*, the καθ' αὑτά or *per se*, and those not so: the editors after Lamb. quote a passage of Porphyry and decide that *coniuncta* = συμβεβηκότα, *eventa* = συμπτώματα. The truth is that in the passage quoted above from Epicurus, as well as in 67, 68, 70, 71 of the same letter, συμβεβ. and συμπτ. are synonymes, denoting either kind of accident; just as Aristotle uses perpetually συμβεβηκός both for his καθ' αὑτὸ συμβ. and for the μὴ καθ' αὑτό: see last chap. of metaph. V; and Cicero in the passage quoted at 419 uses *quaeque his accidant* for both kinds. I might cite many passages from Sextus of the quite indifferent use of the two terms: adv. math. X 221 which bears directly on what follows, τούτων τῶν συμβεβηκότων τὰ μέν ἐστιν ἀχώριστα τῶν οἷς συμβέβηκεν, τὰ δὲ χωρίζεσθαι τούτων πέφυκεν. ἀχώριστα μὲν οὖν ἐστὶ τῶν οἷς συμβέβηκεν ὥσπερ ἡ ἀντιτυπία μὲν τοῦ σώματος, εἶξις δὲ τοῦ κενοῦ....(454 might have been forged from this clause)...οὐκ ἀχώριστα δέ ἐστι τῶν οἷς συμβέβηκεν καθάπερ ἡ κίνησις καὶ ὁ μονή: now comp. with this Diog. Laert. 67: Epicurus argues

the soul is not immaterial, because then it could not ποιεῖν οὔτε πάσχειν: νῦν δ' ἐναργῶς ἀμφότερα ταῦτα διαλαμβάνομεν περὶ τὴν ψυχὴν τὰ συμπτώματα. Are συμπτώματα here *coniuncta* or are they not? I ask; and yet the latest authorities such as Zeller and Ussing continue to distinguish the two terms. Galen also again and again uses them as synonymes; as Method. Med. I 8 ἕτερόν τι γένος εἴτε συμπτωμάτων εἴτε συμβεβηκότων εἴθ' ὅπως ἂν ἄλλως ἐθέλῃ τις ὀνομάζειν. [450 *ea*: for this position in the sentence see Ussing to Plaut. Amph. 181.] 451 *permitiali*: *permities permitialis permitiabilis* are quite distinct in origin, and differ perhaps in meaning from *pernicies perniciosus*: whether *pernicialis* or *perniciabilis* exists I cannot say; but Conington, Virgil vol. 3 p. 223, is mistaken in supposing that I did not believe in the existence of *pernicies, perniciosus*. There is overwhelming evidence however for *permities*, etc.: they are found in the best mss. of Plautus, Livy, Tacitus; in the palimpsest and two other of the best of Pliny xv 74: Nonius, p. 153 and 218, assigns a *permities* to Plautus, Accius and Lucilius: in Sen. Agam. 229 the *permitti* of the Florentine attests *permitiem*: again Donatus ars gramm. II, p. 392 Keil, says 'per inmutationem litterae ut *olli* pro *illi*, syllabae ut *permities* pro *pernicies*', attesting both the *m* and *t*, as otherwise it would not be *syllabae* but *litterae*. *permities* seems to imply 'utter destruction', 'annihilation': *pernicies* and *perniciosus* are prob. connected with *noceo*: see Corssen II p. 422: we say *perniciosae leges*; and in our passage 'sine pernicioso Discidio' would ill express Lucretius' meaning. See Fick vergl. Woerterb. I p. 153, 3 *mi* etc. who compares with various Sanscrit words μινύω μινύθω μείων, *minus minuo* etc., and Corssen krit. Beitr. p. 266 foll.: *permities* therefore will signify 'a wasting away to nothing': Fick l. l. p. 470 'with the form *-tyâ* comp. sanscr. *i-tyâ* 'going', lat. *ex-itium, in-itium* etc.' 452 *seque gregari*: 651 *disque supatis*: so *inque merentes, inque peditur, inque pediti* etc. *inque tueri, inque gravescunt, inque gredi*; *conque globata, conque greguntur, conque putrescunt*; *perque forare, perque volare, perque plicatis*; *proque voluta, praeterque meantum, praeter creditur ire, rareque facit, inter enim iectast, inter enim fugit, inter quasi rupta, inter enim saepit, inter quasi rumpere, inter enim cursat, inter plaga currere*; *circum tribus actis*; *esse sui quiddam super*; even *inter quaecumque pretantur*, and *facit are*; though he does not rival Ennius' *cere conminuit brum*. 455—456 these nominatives, which are out of the construction and = vocabula quae sunt 'servitium etc.' are curious: comp. Catull. 86 3 *Totum illud 'formosa' nego*; [Hor. od. III 24 27 *Si quaeret* 'pater urbium' *Subscribi statuis*; Prop. I 18 31 *resonent mihi* 'Cynthia' *silvae*; Sen. Herc. fur. 643 (647) *poenas dabit*: *Lentum est* 'dabit': *dat*;] and perhaps Cic. de fin. II 107 *haec leviora ponam*: *poema,...signum, tabula, locus amoenus, ludi, venatio, villa*.

459 foll.: here too Lucr. is combating Chrysippus and the porch who

taught that time was not only ἀσώματον, but also like void καθ' αὑτό τι νοούμενον πρᾶγμα: see Sextus l. l. 218. With these vss. should be comp. Epic. in Diog. Laert. x 72, or the fuller passage of Sextus l. l. 219 Ἐπίκουρος δὲ...τὸν χρόνον σύμπτωμα συμπτωμάτων εἶναι λέγει παρεπόμενον ἡμέραις τε καὶ νυξὶ καὶ ὥραις καὶ πάθεσι καὶ ἀπαθείαις καὶ κινήσεσι καὶ μοναῖς. πάντα γὰρ ταῦτα συμπτώματά ἐστι τισὶ συμβεβηκότα. Time therefore is an accident of accidents: Lucr. treats the question with reference to the accidents of body and void last mentioned by Sextus, viz. states of motion and states of rest. Lucr. may well have been thinking of the strange words of Chrysippus in the first book of his φυσικὰ ζητήματα, quoted by Plutarch de comm. not. p. 1084 D, οὐχ ἡ μὲν νὺξ σῶμά ἐστιν, ἡ δ' ἑσπέρα καὶ ὁ ὄρθρος καὶ τὸ μέσον τῆς νυκτὸς σώματα οὐκ ἔστιν· οὐδὲ ἡ μὲν ἡμέρα σῶμά ἐστιν, οὐχὶ δὲ καὶ ἡ νουμηνία σῶμα, καὶ ἡ δεκάτη καὶ πεντεκαιδεκάτη καὶ ἡ τριακάς, καὶ ὁ μὴν σῶμά ἐστι, καὶ τὸ θέρος καὶ τὸ φθινόπωρον καὶ ὁ ἐνιαυτός. **461** *porro* is the connecting particle, *deinde* belongs to *sequatur*, as a connecting particle is wanted: otherwise Plautus joins *deinde porro* and *inde porro*. **464** and **471** *Denique*: see n. to 17. **465 466** *dicunt* and *cogant* plainly refer to Chrysippus and the stoics who, as we saw, taught that accidents were bodily entities, time an immaterial entity: they doubtless therefore used the hymonymes *esse*, *esse* to prove that as for instance the rape of Helen was, therefore the rape exists of itself, and the like: comp. the plurals in 655, 657, 658, 659, 660, 665, 667; 782, 783; 1053, 1062, 1083, 1087; all of them aimed at the stoics. [On *esse* see Mill Logic p. 86 125 etc. (3rd edition), and Hobbes etc. cited by Bisset Essays p. 87 foll.] **466** *haec* the rape of Helen and the conquest of Troy. **469** as usual, to make his argument more vivid, he has taken a special case intelligible to all, the conquest of Troy. This illustration he continues: *Teucris* therefore takes the place of the generic *Corporis* of 482, *regionibus* of *loci*: notice too the *quodcumque erit actum* of a special past event, not *agetur*: he singles out *Teucris* here, because he had singled out *Troiiugenas gentis* in 405: the Greeks in both cases would have answered his purpose, had he so chosen. **471** he seems here to pass from time, the accident of accidents, to the more general question of 449, that of accidents generally. **473** *conflatus* keeping up the metaphor of a fire blown into flame. **474** *Alex. Phrygio sub pec.*: II 501 *Thessalico concharum tacta colore*; V 24 *Nemeaeus magnus hiatus Ille leonis*: comp. Virgil's *Tyrrhenusque tubae clangor*; *arma dei Volcania*; Valgius' *Pylio profluxerit ore Nestoris*; Catullus' *iniusti regis Gortynia tecta*; Horace's *pinguis Phrygiae Mygdonias opes* [and *Tyrrhena regum progenies*; Propertius' *eques Etrusco de sanguine regum*]; Homer's Γοργείην κεφαλὴν δεινοῖο πελώρου and Νεστορέῃ παρὰ νηὶ Πυλοιγενέος βασιλῆος: perhaps too 119 *gentis Italas hominum*; but see n. there. *gliscens* still keeping the same metaphor. **475** *Clara* seems

a play on the two meanings of famous in story, and bright in reference to the flames of war: comp. 639 *Clarus ob obscuram linguam.* 476 *durateus,* the ἵππου κόσμος Δουρατέου τὸν Ἐπειὸς ἐποίησεν σὺν Ἀθήνῃ, made more famous by the 'timber' horse of bronze in the acropolis, out of which peeped Menestheus Teucer and the sons of Theseus, whence Virg. Aen. II 262 probably got his Acamas. *Troiianis* is of course governed by *clam*: Lamb. Creech Wak. and others have strangely blundered here. ['Caes. b. c. II 32 8 *nonne sibi clam vobis salutem fuga petivit?*: weiter kenne ich keine Beweisstelle fuer *clam* mit dem Ablat.' Draeger hist. synt. I p. 621: but see also Fronto ad amic. 1 15 *quod clam ceteris esse velim*; auct. bell. Afr. II 4 *clam hostibus*; these four instances seem indisputable. In Plautus Ritschl and Fleckeisen seem to wish to expel the abl., perhaps rightly if Ritschl is correct with regard to A. But in merc. 809 (798 Uss.) all mss. have *viro si clam*: *virum* is a conj. *Palam* governing only abl., I had thought this construction with *clam* more common than it is, and that the acc. was an archaism.] *partu*: Aesch. Agam. 791 Ἀργεῖον δάκος Ἵππου νεοσσός: Eurip. Troad. 11 Ἐγκύμον' ἵππον τευχέων: perhaps Lucr. was thinking of Ennius' *gravidus armatis equus Suo qui partu perdat Pergama ardua*: Virgil's *uterumque armato milite complent* is the same metaphor. 477 *equos* our mss. this once: *ecus* or *ecum* three times: *equus* once, which Lucr. would scarcely have written, but well *equs.* 479 *constare* and *esse* are here perfectly synon. 480 *cluere* = esse. 481 *Sed magis* [ita esse et ita cluere] *ut.* 482 see n. to 469.

483—502: the first-beginnings are perfectly solid and indestructible: sense suggests no notion of this solidity: reason can alone prove it. 483 484 translated from Epic. in Diog. Laert. X 40 τῶν σωμάτων τὰ μέν ἐστι συγκρίσεις, τὰ δ' ἐξ ὧν αἱ συγκρίσεις πεποίηνται. 483 *corpora* in its most general sense, as 420 *nam corpora sunt et inane*: and as already observed he always uses the term quite indifferently for either *corpora prima* or *res.* 484 *concilio constant*: see n. to 221. 485 *Sed* means, though other *corpora* may, these may not. 486 *Stinguere* seems peculiar to Lucr. who uses it several times, and his frequent model Cicero in his Aratea: it appears synon. with *extinguere* and is used elsewhere by Lucr. for quenching fire or thirst: the more common *extinguere* is used in the same way for any kind of destruction. *demum*: however long the contest, they in the end prevail: ἄτομα καὶ ἀμετάβλητα, says Epicurus himself l. l.: 'the mass of the molecule, and the other constants which define its properties, are absolutely invariable; the individual molecule can neither grow nor decay, but remains unchanged amid all the changes of the bodies of which it may form a constituent' Prof. Maxwell, Introductory lecture p. 21. 489: VI 228 *Transit enim validum fulmen per saepta domorum, Clamor ut ac voces*: *caeli fulmine* occurs V 1244. 491 *fero*: this epithet is applied by Ovid to *ignis* more than once. 492 *labef.* implies

the breaking up of the whole inner structure of a thing by some greater force, esp. heat as here: IV 697 *igni conlabefacta*; Aen. VIII 390 *Intravit calor et labefacta per ossa cucurrit.* *rigor*: Virg. geor. I 143 *Tum ferri rigor*; Manil. II 780 *ferrique rigor*; Prudent. perist. X 702 *aeris aut ferri rigor.* 493 *glacies*, a bold but expressive metaphor to which I know no exact parallel; but Mart. I 49 12 says *Salone, qui ferrum gelat.* 494 *penetrale*: Virg. geor. I 93 [and Mart. IV 19 9] *penetrabile frigus.* 496 *lymph. rore*: 771 *roremque liquoris*; 777 *cum rore*; IV 438 *rorem salis.* 499 *ades*: *adesse animo* and *animis* are common in Cicero: but as here, Ov. ex Ponto III 3 2 *ades, Dum tibi quae vidi refero*; Plaut. Men. 643 *audi atque ades*; merc. 568 *ausculta atque ades*; Sen. Hipp. 1175 *Ades parumper.*

503—550: where void is, body is not: these first bodies therefore are solid and without void: things in being all contain pure void enclosed by pure body: these first bodies then may continue, when the things are broken up: and void we have shewn must exist; it alternates then with body: these first bodies cannot be crushed split or broken up from within; they are therefore eternal: without this eternal matter all things would have come from nothing, and would have been reduced to nothing: first-beginnings therefore are of solid singleness.

506 *sibi* appears to be added merely to increase the force of *per se* and *puram* as in English we say 'in and for itself', 'for and by itself': III 145 *Idque sibi solum per se sapit*; 684 *per se sibi vivere solam*: *per se* is often used by Lucr. with this force: we have already had it eight times. This being a cardinal point in Epicurus' philosophy, the absolute distinctness of the atoms and void which alternate in everything in being, he puts the statement of this doctrine in a variety of shapes. The necessary result is the absolute hardness and impenetrability of his first-beginnings; and it is the absence of this perfect fulness and solidity in the elements of rival philosophers that he again and again most strongly inveighs against. 507—509 *quacumque, ea*: Livy XXIV 2 10 *quacumque, ea*; and *qua, ea* again and again. 508 *tenet se* = locum tenet, and *tenet* neut.: in Livy *intra Appeninum, loco, finibus, castris, muris, moenibus se tenere* and the like are very common. 511 *genitis in rebus*, to express more distinctly what *in rebus* alone expresses. 515 *solidum* in its technical sense of perfect impenetrability: see n. to 1018 *magnum*, and IV 63 *tenuis.* *relinquas*: this verb in the sense of conceding occurs not unfrequently in Lucr. as soon after, 658 and 743: for the infin. see n. to III 40. 517 as *inane* is so oft. a subst. in Lucr., surely *in. rer.* for 'the void of things in being' is not harsher than 363 *natura inanis* (gen.) and 365 *plus esse...inanis.* 520 *vocaret*: with the old writers *voco, vocuus, vocatio* etc. were the common, if not the only forms in use for *vaco*, etc.: Fleckeisen, Bergk, Buecheler Rhen. mus. n. f. XIII p. 583, Mommsen corp. inscr. Lat. I p. 71, Ritschl have

sufficiently shewn this; the Ambrosian in Plaut. trin. 11 has retained *vocivas*, Ter. heaut. 90 the Bembine *vocivom*; the new corp. inscr. four times has *vocatio*, never *vacatio*; and an inscription of the age of Augustus *vocuam*: the *a* does not appear in inscriptions before the age of Domitian: Manil. I 13 *Hoc sub pace vacat* (Gembl. *vocat* other mss. which means the same) *tantum*: Jacob quite mistakes the meaning. 521 and 526 *corp. certa*: *certus* in Lucr. Cicero and the best writers sometimes approaches in meaning to *quidam*, and our and the French *certain*; or rather to *certus quidam*: *corp. certa* here=precisely 675 *certissima corpora quaedam*: comp. also 812 *alimur nos Certis ab rebus, certis aliae atque aliae res*; and VI 783 *Arboribus certis*. 523 the *omne* or *omne quod est* consists of *spatium* or *omne quod est spatium* and *corpora* in its widest sense, as shewn at length later in this book: see n. to 958: Wak. and others by placing the comma after *spatium* utterly pervert the argument. 525 *naviter* is found in Cicero, Terence, Horace: Lucr. has also *duriter*, twice *largiter*, often *uniter* and *longiter*: adverbs in *-iter* are very common in the older writers. *omne* or *omne quod est* is nomin. to *extat*. 529 so II 539 *penitus penetrari*; and VI 698. *retexi*: so 243 *contextum* for their structure: one cannot tell whether *retexi* is gov. of *possunt* or *queunt*: Lachmann's punctuation assumes the latter. 530 *temptata labare*: 537 *temptata labascit*; II 967 *dolore Temptari*; V 345 *cum res tantis morbis tantisque periclis Temptarentur*: *temptare* is a proper term for being assailed by disease. 531 *supra paulo*: he must refer to 485 foll., though it seems merely a part of the present argument. 532 *conlidi...frangi=dissolvi extrinsecus icta*: *findi sec.=penetrata retexi*: 534 535 are exs. of 530. 533 *nec findi in bina secando*, the expression which comes nearest to the technical Greek name ἄτομα or ἄτομοι, a literal rendering of which Lucr. with poetical tact always avoids. 534 *manabile*, a word formed by him to express what 494 he called *penetrale*: *manare* is a favourite word of his in similar senses. 536 Lucr. always says *quo magis* or *quanto magis* or, as once VI 460, *quam quoque magis*, —*tam magis*: never *quam m., tam m.* 543 *supra*: 149 foll. 546 *supremo tempore* recurs III 579. 547 *reparandis*: this verb is often used by him in this poetical sense, to produce anew; as 550. With the above section may well be compared the words of Epicurus himself l. l. 41 ταῦτα δ' ἐστὶν ἄτομα καὶ ἀμετάβλητα, εἴπερ μὴ μέλλει πάντα εἰς τὸ μὴ ὂν φθαρήσεσθαι, ἀλλ' ἰσχύοντα ὑπομένειν ἐν ταῖς διαλύσεσι τῶν συγκρίσεων, πλήρη τὴν φύσιν ὄντα καὶ οὐκ ἔχοντα ὅπη ἢ ὅπως διαλυθήσεται: Plut. de plac. phil. I 3 p. 877 D gives a good definition of the atoms: Newton too would seem to have had Lucr. in mind when near the end of his optics, ed. Horsley IV 260, he wrote 'it seems probable to me that God in the beginning formed matter in solid massy hard impenetrable moveable particles, of such sizes and figures and with such other properties and in such proportion to space, as most conduced to the end for which

he formed them; and that these primitive particles being solids are incomparably harder than any porous bodies compounded of them, even so very hard as never to wear or break to pieces'. Farther on he speaks of 'particles of matter of several sizes and figures and several proportions to space, and *perhaps of different densities and forces'*. His particles agree in every point with those of Lucr. except in the concluding words. It appears from a most interesting discussion in Edleston's correspondence of Newton and Cotes p. 75 foll. that Cotes objected to one of the corollaries of his principia, unless he altered the last clause just quoted from his optics. Upon which Newton thanks him for explaining his objection and adds a fourth corollary, *Si omnes omnium corporum particulae solidae sint eiusdem densitatis neque absque poris rarefieri possint, vacuum datur*, thus coming to a complete agreement with Lucr.

551—576: if these first bodies did not set a limit to the division of things, nothing could come into being; for as things are destroyed more quickly than they are renewed, infinite time to come could not restore what infinite time past had gone on breaking up: again with solid first bodies the existence of soft things can be explained by help of void: with soft first bodies the existence of hard things cannot be understood. 553 *redacta* used absolutely without *in* or *ad* or some other prepos. is very rare: comp. Ter. heaut. 945 *eius animum...retundam, redigam, ut quo se vertat nesciat*; but both in Lucr. and Terence *eo* seems to be understood out of the clause with *ut*: *usque eo, ut*; as in Virg. ecl. IX 2 *vivi pervenimus, advena nostri...ut possessor agelli Diceret*; though Virgil's expression is shewn to be proverbial from Petron. sat. 77 *satis vivus pervenero*: comp. too Caes. bell. Gall. II 27 5 *quae facilia ex difficillimis animi magnitudo redegerat*; IV 3 4 *multo humiliores infirmioresque redegerunt.* 554 *a cer. tem.*: 767 *Alternis gignuntur...tempore ab omni*; Livy XXIV 46 4 *imber ab nocte media coortus*; Ov. ex Ponto II 3 79 *quo sit primum nobis a tempore cultus*; Hor. sat. I 6 94 *A certis annis aevum remeare peractum*: comp. too expressions met with in Caesar again and again, such as *positis castris a milibus passuum* XV: *ab* seems to mean 'within a time' or 'distance', 'beginning from', and to resemble the usage illustrated at VI 968 *ab igni.* 555 *perv. ad auct.*: comp. II 1121 *Hic natura suis refrenat viribus auctum* and V 846. *perv. ad* or *in* 'to arrive at': so Cicero *pervadere in Italiam, in aures* and the like; but *pervadere animos* 'to pervade the minds'; and so Varro de ling. Lat. VII 14, cited by Lach., quotes Accius *Pervade polum* cet. and explains *quare quod est* 'pervade polum' *valet vade per polum.* 557 foll.: comp. the passage quoted from Newton in the next section. 557 the constr. is nowise clear: the simplest course seems to be to suppose the clause a double one, *quod longa diei aetas*, [hoc est] *infinita aetas ant. temp.*: comp. 233 *Infinita aetas consumpse anteacta diesque*; from which Faber conjectures here *longa dies et*: comp. too Enn. ann. 401 *longinqua dies quod*

fecerit aetas. [558 *Inf. aet. temp.*: Prop. I 4 7 *formosi temporis aetas.*] 559 *Quod*: for position in sentence see n. to VI 789. 560 *relicuo*: this word, spelt sometimes *reliquus*, is always 4 syll. in Lucr. and the older writers, who refused to unite the last two syll.: the first is only lengthened by metrical necessity, as it is short in metres which admit that quantity, and was never lengthened after it became a trisyll. Many, Virgil Horace etc., avoid the word: see Lach. p. 305: if Manil. II 734 be not admitted, Persius Silius Statius Juvenal first used it as a trisyll.: comp. V 679 *Consequë*, the principle of which is the same.
564 comp. V 847 *Nec potuere cupitum aetatis tangere florem.* 566 *cum constant*: yet II 469 *Scilicet esse globosa tamen, cum squalida* constent; which is the ordinary usage. [See Luebbert, ind. nach caus. u. adv. *quom* p. 112 foll.; Autenrieth, *quom* p. 309 foll.; and Ussing to Amph. 746.] Lamb. an excellent judge says 'ne quis semidoctus putet reponendum *cum constent;* illo enim modo potius loquebantur antiqui': the *potius* perhaps goes too far: yet Lucr. can use the indic. when, as here, you can translate 'when or while at the same time': comp. II 690 *Cum tamen...necesse est*; and VI 130, which is essentially similar, and note there: comp. too II 29 *Cum tamen...curant*; 859 *quae cum ita sunt tamen ut*; III 363 *praesertim cum...nequimus*; 411 *Cum cohibere nequit*; VI 140 *cum tamen alta Arbusta...haurit,* where Lamb. again remarks '*cum* iunxit cum indicativo, quod M. Tullio et bonis scriptoribus usitatum est, tametsi secus existimet vulgus': the *tamen* would seem to make a difference, [expressing as it does the concession usually expressed by the subjunctive and so keeping the indicative.] *possit reddi* = possit ratio reddi; answering precisely to 572 *Non poterit ratio reddi*: comp. II 179 and V 197 *aliisque ex rebus reddere multis* with III 258 *quo pacto ...vigeant rationem reddere* and IV 572 *rationem reddere possis...quo pacto*: III 354 *adferet* = rationem adferet: see Cicero quoted there. For the involved constr. comp. n. to III 843. 571 *silices* denote the hard blocks of volcanic basalt with which the Romans paved their streets and roads: VI 683 of Aetna *silicum suffulta cavernis*: with Livy and others *silice sternere* was the technical term for this paving. 572 *funditus...fundamenti*, like *penitus penetrari*, *apparet aperte* and the like. In illustration of 565—576 hear what Newton says in his optics p. 251 'all bodies seem to be composed of hard particles: for otherwise fluids would not congeal...Even the rays of light seem to be hard bodies...and therefore hardness may be reckoned the property of all uncompounded matter... Now if compound bodies are so very hard as we find some of them to be, and yet are very porous and consist of parts which are only laid together, the simple particles which are void of pores and were never yet divided must be much harder. For such hard particles being heaped together can scarce touch one another in more than a few points, and therefore must be separable by much less force than is requisite to

break a solid particle whose parts touch in all the space between them without any pores or interstices to weaken their cohesion'.

577—598: again we do see things in being: they must have had first-beginnings: could then these first-beginnings, if soft, have withstood the blows of infinite time? the persistency too of specific marks in living creatures seems to prove an unchangeable matter at bottom.

578 *quaeque sup. cor. rebus* = superare cuique rei sua corpora: comp. 599 *extremum quodque cacumen*, and n. to II 371. 579 *superare* = superesse, as 672 and 790 repeated II 751; in each case in the infin.: lexicons shew that the word has this sense in the best authors: [see Mayor to Juv. XII 68.] 580 *clueant* again = sint. 582 *Discrepat...potuisse*: I know no other instance of this constr.: but, as it has the meaning, perhaps it takes the constr. of *non convenit*: comp. too IV 1088 *fieri.. repugnat*, and n. to IV 766. 586 *foed. nat.* a favourite expression: so II 254 *fati foedera*; also *foedere* alone: so in Virgil *foedera* and *foedere*; and Manil. II 301 340 359 379. 587 *sancitum* an almost unexampled form; the instances quoted from Cicero are changed to *sanctus* in the latest editions: in Pison. 90 Halm reads *sancitum*, though the mss. have all *sanctum*: he refers to Diomedes p. 368 (370 Keil); but he only cites our passage, and from Cassius Severus *lege sancitum est*. 588 *quin constant*: in ed. 1 I followed Lach. who says 'scribendum est *constent*. nam Lucretius *quin* cum indicativo non iungit, nisi ut eam coniunctionem quae est *etiam* adiciat, aut certe id pronomen quod prope idem significat, id est *ipse*. hoc semel usus est in libro II 799 *Lumine quin ipso mutatur*'. But when the cases where *quin* is followed by *etiam*, or where it introduces a dependent relative clause, as *quid dubitas quin* and the like, are deducted, the remaining instances in Lucr. are too few I think to let us infer that he would not here use the indic. which is more emphatic and in accordance with the usage of the best writers, Plautus for instance and Livy so far as my observation goes. The passages of Lucr. which can well be brought into comparison are these, I 1080, repeated II 237, *Quin...pergat*, and VI 321 *Quin...veniat*, in all of which the preceding infinitive clause seems to make the subj. necessary; and II 1079 *Quin...siet* where the preceding *Huc accedit ut* makes it uncertain whether *quin siet* is in apposition with or dependent upon *quae gignatur* cet.: VI 321 indeed *Quin...veniat* both the above reasons can apply. *quin constant* therefore is in apposition with *Nec commutatur*, *quin* being properly the interrogative *quin* i.e. *qui ne*; used so much by all writers with the 2nd pers. sing. and 1st pers. plur. *quin is*? *quin imus*? and the like. Plautus has scores of examples like these, trin. 932 *Lubet audire nisi molestumst.—Quin discupio dicere*; curc. 251 *Palinure, quid stas? quin depromuntur mihi, Quae opus sunt.* Precisely similar to our passage are these, epidicus II 3 1 *Nullum est opinor ego agrum in agro Attico Aeque feracem:...quin...Decutio argenti tantum*

quantum mihi lubet; Men. 687 *Neque edepol te defrudandi causa posco*: *quin tibi Dico uxorem rescivisse*; mercator 215 *non visus est* [suspicari]: *Quin quicque, ut dicebam, mihi credebat*; Catull. 61 101 *Non tuus...vir ...A tuis teneris volet Secubare papillis,...quin...Inplicabitur in tuum Complexum*; [Cic. epist. III 6 2 *quin . . te antea . . decessurum fuisse*; VIII 2 1 (Caelius) *quin ego . . obstupui et mihi visus sum captus esse*; ad Q. fr. I 3 10 *quin illud maereo.*] Of many instances in Livy take II 29 8 *nec sisti posse . . quin . . accendi magis discordiam quam sedari*; IX 16 19 *nemo unus erat vir, quo magis innixa res Romana staret: quin eum parem destinat* cet.; 25 2 *nec Capua ipsa crimine caruit*; *quin Romam quoque . . ventum est*; XXII 41 4 *Hannibal id damnum haud aegerrime pati: quin potius credere*; XXV 36 14 *luctus ex morte eorum non Romae maior quam per totam Hispaniam fuit: quin apud cives partem doloris...publica trahebat clades*; XXXI 31 9 *neque infitias imus... quin contra hoc et vos et omnes gentes scire volumus*; XXXV 26 10 *nihil ea res animum...imminuit: quin contra...affirmabat.* I have noted four instances in the speeches of Sallust's Historiae. [So perhaps Plaut. Amph. 629 *Ita dis est placitum, voluptatem ut maeror comes consequatur, Quin incommodi plus malique ilico adsit, boni si obtigit quid.*] 589 *variae*, a favourite epithet of *volucres*, meaning the different species: comp. V 825 *volucres variantibu' formis*: so *variae pecudes*, *gentes*, *arbores*, *varii sonitus*, *colores*, *odores*, *mundi*, *conexus*, *varia tempora*, etc. 593 *revicta* = simply *victa*: V 409 *revictae* = perhaps *vicissim victae.* 594 foll. repeated from 75 foll. Hear again what Newton l. l. p. 260 says to illustrate this and the preceding section 557—564, 'while the particles continue entire, they may compose bodies of one and the same nature and texture in all ages; but should they wear away or break in pieces, the nature of things depending on them would be changed. Water and earth composed of old worn particles and fragments of particles would not be of the same nature and texture now with water and earth composed of entire particles in the beginning. And therefore that nature may be lasting, the changes of corporeal things are to be placed only in the various separations and new associations and motions of these permanent particles, compound bodies being apt to break not in the midst of solid particles, but where those particles are laid together and only touch in a few points'.

599—634: these first-beginnings have parts, but their parts are so small as not to admit of existence separate from the atom: the atom therefore has not been formed from a union of these parts, but they have existed in it unchangeably from eternity: such parts then are but one more proof that the first-beginnings are of everlasting singleness: again without such ultimate least things, the smallest and largest thing will alike consist of infinite parts, and thus will be equal: again if nature went in division beyond the atom, such least things as these parts of the

atom could not have the qualities which birth-giving matter must have, weight, motion, power of striking and clashing and combining.—A passage necessarily obscure, because dealing with one of those questions which utterly elude the grasp of human reason. Epicurus building up his dogmatic system and hating all scepticism on first principles, determined that his atoms should have size shape weight, in his own words μέγεθος σχῆμα βάρος, and therefore extension. But if extension, then parts; and how can that which has parts be indivisible? This is the question which Lucr. here answers. That the atoms of Epicurus though extremely small were finite and had parts, abundant proof was given in Camb. journal of phil. I p. 28 foll. and 252 foll. Comp. Epicurus quoted a page after this and Stob. ecl. I 10 14 εἴρηται δὲ ἄτομος, οὐχ ὅτι ἐστὶν ἐλαχίστη ἀλλ' ὅτι οὐ δύναται τμηθῆναι, ἀπαθὴς οὖσα καὶ ἀμέτοχος κενοῦ: Simplic. to Arist. phys. p. 216 a, a few lines from end, though he varies in his testimony about Democritus, says of Epicurus ἀμερῆ μὲν οὐχ ἡγεῖται, ἄτομα δὲ αὐτὰ διὰ τὴν ἀπάθειαν εἶναί φησι: see the journal l. l. for proof that Democritus and Leucippus held the same doctrine which they probably derived from the pythagoreans. Doubtless the epicureans long waged bitter war with the peripatetics who held the infinite divisibility of things: see Alex. Aphrod. to Arist. met. p. 745 4 Bon. πολλὰς γὰρ εὐθύνας δέδωκεν ἡ τὰ ἄτομα μεγέθη εἰσάγουσα δόξα, an imitation of the περὶ ψυχῆς I 4: one of the commonest terms with Epic. for his atoms is ὄγκοι or bulks. Lucr. therefore seeks to maintain at the same time that cardinal point in the epicurean physics that atoms are impenetrable and indestructible, and yet possessed of weight shape and extension, and to shew how particles thus endowed are incapable of further division: atoms have parts, but these parts are *minima*, the ἐλάχιστα of Epicurus, not able to exist alone, abiding therefore in the atom from all eternity in unchangeable juxta-position.

599 *extr. quodque cac.*: see notes 1 for the probable nature of the hiatus: the expression resembles therefore 578 *quaeque...corpora rebus*; see note there: so that the *extr. quodque cacumen* here exactly equals the *extremum cuiusque cacumen* of 749, with which we have compared it in the next page. 600 *Corporis* etc. is of course the atom: *corpora* or *corpora prima* we have already found to be among his commonest terms for his atoms: 483 *Corpora sunt porro partim primordia rerum*; and so Stobaeus l. l. and Plut. de plac. phil. I 3 p. 877 D say that Epicurus defined τὰς ἀρχὰς τῶν ὄντων σώματα λόγῳ θεωρητά κ.τ.λ.: *corpus* is thus used in the sing. in 606 *naturam corporis*, and II 484 *cuiusvis in brevitate Corporis*, and 490 *totius corporis eius*: though our present passage has been grievously misunderstood, the words added would seem to preclude any doubt, as well as the tenour of the whole passage: *illius qu. n. c. s. Iam nequeunt* he says; and so II 312 *Omnis enim longe nostris ab sensibus infra Primorum natura iacet; quapropter*

ubi ipsa Cernere iam nequeas: the *iam* implying that when you arrive at the atom, it is already far below the ken of sense. Lucr. never tells us what he conceived the magnitude of his atoms to be, and probably he never tried to represent it to his own mind: perhaps, if he had known them, he would have accepted the calculations of an eminent living authority upon molecular physics, who decides that if a drop of water were magnified to the size of our globe, the molecules composing it would be magnified to sizes varying from the size of shot to the size of billiard-balls. With this passage must be compared 749 foll. where he is blaming those who refuse to admit a limit to the division of things, *Cum videamus id extremum cuiusque cacumen Esse quod ad sensus nostros minimum esse videtur, Conicere ut possis ex hoc, quae cernere non quis Extremum quod habent minimum consistere in illis*: and with both passages Epicurus' own words in Diog. Laert. x 58 τό τ' ἐλάχιστον τὸ ἐν αἰσθήσει δεῖ κατανοεῖν ὅτι οὔτε τοιοῦτόν ἐστιν οἷον τὸ τὰς μεταβάσεις ἔχον οὔτε πάντως ἀνόμοιον, ἀλλ' ἔχον μέν τινα κοινότητα τῶν μεταβάντων διάληψιν δὲ μερῶν οὐκ ἔχον...ταύτῃ τῇ ἀναλογίᾳ νομιστέον καὶ τὸ ἐν τῇ ἀτόμῳ ἐλάχιστον κεχρῆσθαι. μικρότητι γὰρ ἐκεῖνο δῆλον ὡς διαφέρει τοῦ κατὰ τὴν αἴσθησιν θεωρουμένου, ἀναλογίᾳ δὲ τῇ αὐτῇ κέχρηται· ἐπείπερ καὶ ὅτι μέγεθος ἔχει ἡ ἄτομος κατὰ τὴν ἐνταῦθα ἀναλογίαν κατηγορήσαμεν, μικρόν τι μόνον, μακρὸν ἐκβάλλοντες. Epicurus and Lucr. are each comparing the ἐλάχιστον or *minimum* of an atom with the ἐλάχιστον or *minimum* in a visible thing. What is the *cacumen* of Lucr. in 599 and 749? Epicurus wrote περὶ τῆς ἐν τῇ ἀτόμῳ γωνίας, where he doubtless treated of the present question: if then a visible thing has an angular form, the τὸ ἐν αἰσθήσει ἐλάχιστον or *cacumen* seems to be the apex of the angle, which before it vanishes, appears to sense to be without parts and the least conceivable, and not to belong to what is on one side more than to what is on its other side: if again the form be spherical, the *cacumen* would seem to be the outermost surface edge at any point, and so with other shapes. The same analogy Epicurus and Lucr. hold to exist in the extremely small, but yet extended atom: there seemed to them no reason why a *cacumen* or *minima pars* should part off to one side more than the other, and therefore it would remain in the atom in eternal equipoise. Epicurus in his intricate prose might have dwelt on this more fully than Lucr. could do in his verse: the poet therefore seems tacitly to assume it and to pass *in medias res*; and he was right in so doing. In the visible thing however the *cacumen seems* to be a *minimum*, in the atom it *is* a *minimum*, so small that nothing can be smaller and exist. From II 483 foll. it would appear that three of these *minimae partes* or *cacumina* were the fewest that could exist in an atom. 601 *id*, the *cacumen* of course: it has no parts, but is itself one of the parts of the atom, having no conceivable existence apart from the atom. 602 *minima*: in Luc. this word, when it has a physical meaning, appears

always to be, like Epicurus' ἐλάχιστον, a technical term for the smallest thing that can exist, or the smallest effect that can be produced; and in this sense occurs ten or eleven times in the poem: so Cic. de fin. I 20 *ne illud quidem physici credere aliquid esse minimum*, and V 78 *ea nos mala dicimus, sed exigua et paene minima.* 604 *alterius*, of the atom. *ipsum* is emphatic, 'in its very essence'. 605 *ex ordine*, having each so existed without possible shifting of position. 608 *unde* seems to have *in eo* i.e. *in corpore*, in the atom, for its antecedent: [Hirt. b. Gall. VIII 14 5 *aciemque eo loco constituit unde tormento missa tela in hostium cuneos conici possent;* 35 1 *unde* (=ut inde) *paulatim frumentum in oppidum subportarent.*] 609 *Sunt igitur*: parts of this sort are only a further proof that the atom is single and impenetrable. 611 not like *res*, formed from a union of such parts, but of everlasting singleness, because its parts cannot exist out of the atom. 612 *Sed magis*=potius: so 481, II 97, 428, 814, 869, 1086, III 819, 982, V 1203. 613 *iam*, as 601: when you get to the atom, division stops: see n. to II 426. In illustration of the above argument of Lucr. I cannot refrain from quoting out of many the following sentences of Henry More: immortality of the soul, preface 3 'I have taken the boldness to assert that matter consists of parts indiscerpible, understanding by indiscerpible parts particles that have indeed real extension, but so little that they cannot have less and be anything at all, and therefore cannot be actually divided:...the parts that constitute an indiscerpible particle are real, but divisible only intellectually, it being of the very essence of whatever is, to have parts or extension in some measure or other; for to take away all extension is to reduce a thing only to a mathematical point, which is nothing else but pure negation or nonentity'. Ibid. I 6 5 'it is plain that one and the same thing, though intellectually divisible, may yet be really indiscerpible. And indeed it is not only possible, but it seems necessary that this should be true'.

615 and 621 *parvissima* used apparently, because *minimum* is wanted to denote an absolute least thing; the word recurs III 199 and is quoted by Nonius from Varro: with this and what follows comp. Epicurus himself in Diog. Laert. X 43 οὐδὲ γάρ, φησὶν ἐνδοτέρω, εἰς ἄπειρον ἡ τομὴ τυγχάνει, ἐπειδὴ αἱ ποιότητες μεταβάλλονται, εἰ μὴ μέλλει τις καὶ τοῖς μεγέθεσιν ἁπλῶς εἰς ἄπειρον αὐτὰς ἐκβάλλειν. 617 *pars*=dimidia pars, understood from the context: Livy XXXI 26 2 *dimidia parte militum... dimissa, cum parte ipse..consedit,..* 6 *diviso deinde exercitu rex cum parte,...cum parte*; XXV 19 3 *pars dimidia cives, pars socii*; VIII 4 4 *cur non alter ab Latinis consul datur? ubi pars virium, ibi et imperii pars esto*; [VI 27 6 *quae indicatura sit demersam partem a parte civitatis*: see also n. to II 200; Caes. b. Gall. VII 32 5 *fore uti pars cum parte civitatis confligat.*] 618 *praefiniet*: *prae* seems to express the getting before and so stopping: comp. *praecludo* and the like. 619 *rerum sum-*

mam is almost a play on words: it means the universe of things, and at the same time the largest thing conceivable in opposition to *minimam*. *escit* is quoted by Gellius XX 1 25, *nec escit* for *non erit* and *escunt* by Cicero, from the XII tables: Enn. ann. 486 and Accius 266 have *superescit*; Paulus Festi p. 188 *obescet*. [For *escit* see Wordsworth's Fragments and Specimens p. 511.] 620 *Nil erit ut dist.* = nil distabit: comp. III 715 *haut erit ut possint*: so *non est ut possis*, *est ut possit*, *est quoque uti possit*, *est ut percipiat*, *est ut videatur*; *non erat ut fieri posset*; v 715 *Est etiam quare possit*: *fit ut*, *fit uti* are still more common: he ventures to say VI 727 *fit uti fiat* and 729 *fit uti fiant*. 622 each will alike have infinite parts, and by the old paralogism would be equal, because all infinites are equal: precisely thus the Indian atomist Kanadi declared there would be no difference in size between a mustard seed and a mountain, a gnat and an elephant, each alike containing an infinity of particles: see Daubeny's atomic theory p. 8: Henry More too l. l. argues 'thus a grain of mustard seed would be as well infinitely extended as the whole matter of the universe, and a thousandth part of that grain as well as the grain itself'. Zeno the Eleatic by like reasoning concluded that, if things were 'many', they would be at once small and great; so small as to be without magnitude, so large as to be infinite in magnitude. Bentley in his Boyle lectures brandishes this weapon in the faces of the epicureans as Lucr. does against the peripatetics. Newton in his 2nd letter to him admirably refutes the fallacy, giving at the same time its clearest exposition. As we shall again encounter this fallacy in Lucr. I will cite a few lines: 'I conceive the parallogism lies in the position that all infinites are equal. The generality of mankind consider infinites no other ways then indefinitely; and in this sense they say all infinites are equal; though they would speak more truly if they should say they are neither equal nor unequal, nor have any certain difference or proportion one to another. In this sense therefore no conclusion can be drawn from them about the equality proportions or differences of things, and they that attempt to do it usually fall into parallogisms. So when men argue against the infinite divisibility of magnitude by saying that if an inch may be divided into an infinite number of parts, the sum of those parts will be an inch; and if a foot may be divided into an infinite number of parts, the sum of those parts must be a foot; and therefore since all infinites are equal, those summs must be equal, that is an inch equal to a foot; the falsness of the conclusion shews an error in the premisses; and the error lies in the position that all infinites are equal'. 623 *Quod quoniam*: see n. to 82 *quod contra*. 625 *ea*, the *minimae partes*. *iam*, as 601 and 613: when you are come to them. 626 *quae*, the same *minima*. 627 *Illa quoque*, those atoms too, of which the *minima* are parts. *esse ...fatendum*: on the omission of *est* comp. n. to 111. 628 if nature

had gone in division beyond the atom, even to these absolutely least parts of the atom. 631 *part. aucta*=625 *praedita part.*: so III 626 *Quinque...sensibus auctam*; Catullus 64 165 *quae nullis sensibus auctae*; v 723 *quaecumque est ignibus aucta.* 632 *habere* belongs of course to *possunt*, as well as *debet*; so that it is perhaps best taken as another instance of that involved structure which I have illustrated at III 843: *non possunt ea habere quae d. g. m.*: comp. 648 649. *ea quae*, all which properties the atoms have: they possess size shape weight, which enable them, as we shall see, to move, to clash, and join together; none of which functions those *minimae partes* destitute of all qualities, if existing alone could perform. 633 *conexus, conecto, conixus, conivere, conubium* in our mss. and all good mss. are always spelt with one *n*: there is no authority whatever for *nn*. 628—634 what Lucr. felt and meant to express in these vss. might be illustrated by these words of Prof. Maxwell in his Theory of heat p. 285: 'we do not assert that there is an absolute limit to the divisibility of matter: what we assert is that after we have divided a body into a certain finite number of constituent parts called molecules, then any further division of these molecules will deprive them of the properties which give rise to the phenomena observed in the substance'.

635—644: to maintain therefore with Heraclitus and his followers that fire is the element of all things is absurd.—Lucr. having now established his two great principles of an unchangeable matter and a void, before he proceeds at 921 to explain by them the nature of things, first in order to make their truth still more manifest, examines the elements of Heraclitus Empedocles Anaxagoras and other philosophers and shews their utter insufficiency. The foundation therefore being worthless, the superstructure must fall to pieces: Principiis tamen in rerum fecere ruinas et graviter magni magno cecidere ibi casu. Of all these men he speaks with admiration or tolerance, except Heraclitus whom he assails with a certain passion and violence. Now that the star of the old Ephesian seems again in the ascendant, such an attack will not meet with much sympathy; the motive however is plain enough: in him he is combating the stoics, the bitter enemies of Epicurus, Heraclitus standing in the same relation to them that Democritus stands to Epicurus. This will appear from the fact that it is only from 690 to 704 that he addresses himself to Heraclitus; from 645 to 689 it is always 'they': *faciant, cernunt, amittunt* etc.; and by such indefinite plurals he elsewhere denotes the stoics: see n. to 465. Indeed 643 644 seem to shew, as we might expect, that he was not insensible to that style and those sayings which sound so grandly even now in the few fragments that have survived. One in the position of Lucr. could only see and criticise a rival philosopher from his own point of view: even Aristotle is taxed with thus dealing with Heraclitus. The πῦρ ἀείζωον φρόνιμον, the πάντα

οἰακίζων κεραυνός, the *ignis sincerus et sine ullius materiae permixtione, ut putat Heraclitus*, would seem to Lucr. a mere outrage on nature and reason; and therefore he will have the heraclitean and stoical fire to be his own fire. The epicurean in Cic. de nat. III 35 speaks to the stoic Balbus in the same sense: *omnia vestri, Balbe, solent ad igneam vim referre, Heraclitum, ut opinor, sequentes, quem ipsum non omnes interpretantur uno modo; qui quoniam quid diceret intellegi noluit, omittamus: vos autem ita dicitis, omnem vim esse ignem* cet. 635 *Quapropter* has clear reference to what just precedes: simple fire as an element cannot have the properties which birth-giving matter must have, *conexus pondera* etc.: this word alone would refute the monstrous corruptions, *ni* and *multis*, which Lamb. and all subsequent editors introduce in 628 and 631. 638 *dux* has the double meaning of leader in war, and chief of a sect: Hor. epist. I 1 13 *quo me duce, quo lare tuter*; Quintil. inst. V 13 59 *inter duos diversarum sectarum velut duces non mediocri contentione quaesitum.* 639 *Clarus*: a play on its double meaning, as 475 *Clara accendisset.* *Clarus ob obscuram*: see p. 15; and comp. Lucan. I 186 *imago Clara per obscuram...noctem*: for constr. comp. Hor. epist. II 2 32 *Clarus ob id factum*; Mela II 26 *ob multa memorabilis est*; Tac. ann. III 75 *ob id fama celebratior.* ὁ σκοτεινός appears first in the de mundo 5 p. 396 b 20 attached to his name: Cic. de fin. II 15 *Heraclitus cognomento qui* σκοτεινός *perhibetur, quia de natura nimis obscure memoravit*; Sen. epist. 12 7 *Heraclitus cui cognomen fecit orationis obscuritas*: how much the term was in vogue might appear from Livy XXIII 39 3 *Legati ad Hannibalem missi, Heraclitus cui Scotino cognomen erat*: which must have been given in jest. [See Schuster in Acta soc. phil. Lips. III p. 355 B; and Tertull. de anima 2 (vol. II p. 560 Oehler) *Heraclitus ille tenebrosus*: a more literal translation than *obscurus*. If the 'de mundo' was later than Hannibal's time, then the allusion in Livy would be the oldest reference to the epithet.] 639 *inanis*, i.e. Graios. 640 *Quamde*: Festus s. v. quotes this passage and two from Ennius: ann. 29 and 139. 641 *stolidi*: 1068 *Sed vanus stolidis*: in both cases with reference to the maintainers of stoical doctrines: he retorts upon them their own term of reproach. *adm. am.*: Hor. epist. II 2 58 *mirantur amantque.* 642 *Inv. ver.*: Ter. heaut. 372 has *inversa verba*, where the meaning is as uncertain as here: Quintil. inst. VIII 6 44 ἀλληγόρια, *quam* inversionem *interpretantur, aliud verbis aliud sensu ostendit, etiam interim contrarium*; and this sense admirably suits the extant fragments of Heraclitus. Cic. de orat. II 261 uses *immutata oratio* with this meaning, *inversio verborum* with that of our irony. The expression might apply too to words in a forced and unnatural position, and therefore obscure. 644 *fucata sonore* seems a very bold metaphor, worthy of Heraclitus.

645—689: how could simple fire produce such a variety of things?

it is of no use to condense or rarefy fire, if it always remains fire: nay they deny void without which even this condensing and rarefying is impossible. But if they say the fire is extinguished in the process, they make things come from nothing. The truth is there are certain first bodies which are not like fire or any thing in being, but which produce fire and all other things alike by their varied shapes motions arrangements collisions. 645 foll. Heracl. frag. 41 Schl. *πυρὸς ἀνταμείβεται πάντα καὶ πῦρ ἁπάντων, ὥσπερ χρυσοῦ χρήματα καὶ χρημάτων χρυσός*: and Themistius ap. Schleierm. p. 95 says in exact conformity with Lucr. *Ἡράκλειτος τὸ πῦρ οἴεται μόνον στοιχεῖον καὶ ἐκ τούτου γεγονέναι τὸ πᾶν*: Brandis however Gesch. d. Entwick. d. Gr. Phil. p. 67 says that this fire or warm exhalation of Heraclitus is that for which all things are exchanged, as wares for gold; but it changes itself as little into the things, as gold changes into these wares; and that later interpreters misapprehended him. Grote too, Plato I p. 28, says 'when we put together all that remains from him, it appears that his main doctrine was not physical, but metaphysical or ontological: that the want of adequate general terms induced him to clothe it in a multitude of symbolical illustrations, among which fire was only one, though the most prominent and most significant.' However that be, Lucr. is here speaking of his followers, espec. the stoics, as remarked above. 648 *rarefieri* and *rarefacere* always in Lucr. have *ē*: so *vacēfit putrēfactus expergēfactus*, all more than once: *confervē̆facit*; *patēfecit* and *patē̆fiet* once, but oftener *patē̆f.*; so *calĕfecit*, *cinĕfactus*; *liquēfit*, but *liquē̆facta*: so *labē̆factat* etc. *labē̆factus*, *tepĕfactus*, *timĕfactus*, *conlabē̆factus*, *conlabē̆fiunt*: *facit are* is uncertain: the *e* was originally long, the Latins having had a strong tendency to shorten final syllables. Ovid and Catullus, so far as they use such words, have much the same varieties of quantity as Lucr.: Ritschl opusc. II p. 618—621 argues that Plautus always has *ĕ* when the prec. syll. is short, as *călĕfacio*, *ē* when that syll. is long, as *pūtĕfacit*. 649 *super* =insuper; as III 672 901 V 763 VI 514: this sense is found in Virgil Aen. I 29 II 71 VII 462, and I think V 697 *Implenturque super puppes*, and in Ovid met. IV 705 XII 206 *Annuerat dederatque super, ne.* Ussing is right in making the constr. of this sentence to be 'si partes ignis eandem naturam, quam totus ignis habet, super haberent': it is another instance of that involution of words illustrated at III 843: but I do not take *super haberent* as he does; but simply as='etiam haberent': comp. 758 *quid a vero iam distet habebis.* 653 *variantia* found also III 318 seems to occur only in Lucr. and to be used for *varietas* for metrical reasons: thus *aegror* for *aegritudo*, *maximitas* for *magnitudo*, *pestilitas* for *pestilentia*, *dispositura* for *dispositio*, *differitas* for *differentia*, *refutatus* for *refutatio*, *emissus* for *emissio*, *commutatus* for *commutatio*, *opinatus* for *opinatio*, *formatura* for *conformatio*, are confined to him, or to him and his constant imitator Arnobius: *satias* for *satietas* is more gene-

ral. and *impete* for *impetu*; but Lucr. has also *impetis* and *impetibus*. 655 I know no other instance of *id quoque* used as here for 'in that way too' or perhaps simply 'again': *quod genus* which is common in Lucr. appears to be not unlike: *id* occurs more than once in Plautus and Terence with the sense of *propterea*: miles 1158, Amph. 909, eunuch. 1005. *faciant* 'assume': so III 878 *facit esse sui quiddam super* and IV 825; also II 485 *fac enim*, a common use. 658 *fugitant* with an inf.: so IV 324 (299) *fugitant vitantque tueri*, and VI 1239. 659 *viai* belongs to *Ardua* also. 665 *alia*: *if* they admitted void, they might account for the condensation and rarefaction of fire. But *this* course they preclude themselves from by denying the existence of void. If then in some other way, which I do not comprehend, they believe fire can be extinguished, then as fire is their sole element, and as it will thus be annihilated, things will have to be created out of nothing. *potesse* is found II 225 and 1010: he also has *potis est*, *potissit*, and *pote* more than once: see Lach. to V 880, and Fleckeisen krit. Miscellen p. 44—47, who restores *potisset* three times in the orations of Cicero. 666 *mutareque*: this annexing *que* to *ĕ*, which Virgil and Ovid appear wholly to avoid, is very common in Lucr. as in the best prose writers. 667 *reparcent* =simply *parcent*, as 593 *revicta*=victa: Plaut. truc. II 4 25 *repercis saviis*=vicissim parcis. 670 671 are thrice repeated in the poem, Lucr. intending thereby to lay stress on the doctrine involved: see the passage from Epicurus cited after 689. 670 *quodcumque*=*si quod* or *quoties aliquid*: then *hoc* has reference to the whole of this clause, this passing out of the fixed limits which held the thing in; it involves therefore the same doctrine as 76 so often repeated, *finita potestas denique cuique Quanam sit ratione atque alte terminus haerens*: things have certain bounds within which they may range and continue what they are; when this limit is passed, they die and pass into another condition. The expression much resembles that of Epicharmus quoted by Diog. Laert. III 11 ὃ δὲ μεταλλάσσει κατὰ φύσιν κοὔποκ' ἐν ταὐτῷ μένει, Ἕτερον εἴη κα τόδ' ἤδη τοῦ παρεξεστακότος, though the thought is different. 672 *aliquit*, *quicquit*, *aliut* are not unfrequently met with in our mss.: in A oftener than B, once or twice in both: the *t* has naturally been retained where no ambiguity is occasioned, such as by *at*, *quot* for *ad*, *quod*.

675 *Nunc igitur*: see n. to 169. *certiss. corp. qu.*: see n. to 521. 677 *abitu aut aditu*: comp. 457 where the contrary is asserted of mere *eventa*. 680 *dec. ab.*=*abitu* of 677; *alia adtr.*=*aditu*; and so 800 *demptis paucis*=*abitu*; *paucis tributis*=*aditu*. 681 *alia* is clearly confirmed by the τινῶν δὲ καὶ προσόδους of Epic. quoted in the next page. 683 *omnimodis* often used by Lucr. as an adv. =omnibus modis: *multimodis* too is used by Terence and him=multis modis: Cic. orator 153 *saepe brevitatis causa contrahebant ut ita dicerent* multi' modis, vas' argenteis cet.; so that *omnimodis* seems formed by Lucr. on a false analogy: Plaut. trin.

931 *nimium mirimodis mirabilis*: there is no adj. *omnimodus* or *multimodus*, any more than *omnigenus*; *omnigenum* in Virgil is for *omnigenarum*: Lucr. uses *omne genus* like *id genus, quod genus.* 684 *quaedam corp.=certiss. cor. qu.* of 675=*corpora certa* of 521; the atoms of course. 685 comp. 632—634. *ordo positura figurae*: these words, repeated II 1021, come from Democritus: see Arist. metaph. VIII 2 p. 1042 b 11 Δημοκρίτῳ μὲν οὖν τρεῖς διαφορὰς ἔοικεν οἰομένῳ εἶναι· τὸ μὲν γὰρ ὑποκείμενον σῶμα τὴν ὕλην ἓν καὶ ταὐτόν, διαφέρειν δὲ ἢ ῥυσμῷ ὅ ἐστι σχῆμα, ἢ τροπῇ ὅ ἐστι θέσις, ἢ διαθιγῇ ὅ ἐστι τάξις. 686 *mutatoque* cet. i.e. quaeque mut. ord. cet. see n. to 718. 687 *igni sim.*: IV 363 *paulum simulata*; Forc. cites Aen. III 349 and Cic. ad Att. IX 8 for the same sense. [So *nec mi similat* (=similis est) is found in Pompeian inscr. n. 1877.] 688 *rei* gen. and dat. forms in Lucr. either two long syll. or one: *rĕi* is not found: so *ēi*; but Ritschl notes that in the 7 places where *ei* occurs, it is always the last foot of the verse: also *fidēi* not *fidĕi.* 689 *adiectu*: IV 673 *naris adiectus odoris Tangat*; V 566 *ignes lumina possunt Adicere*: the *ad* implies the reaching the object aimed at. With the whole argument of 665—689 should be compared Epicurus himself in Diog. Laert. X 54, τὰς ἀτόμους νομιστέον μηδεμίαν ποιότητα τῶν φαινομένων προσφέρεσθαι πλὴν σχήματος καὶ βάρους καὶ μεγέθους καὶ ὅσα ἐξ ἀνάγκης σχήματι συμφυῆ ἐστί· ποιότης γὰρ πᾶσα μεταβάλλει, αἱ δ' ἄτομοι οὐδὲν μεταβάλλουσιν, ἐπειδήπερ δεῖ τι ὑπομένειν ἐν ταῖς διαλύσεσι τῶν συγκρίσεων στερεὸν καὶ ἀδιάλυτον, ὃ τὰς μεταβολὰς οὐκ εἰς τὸ μὴ ὂν ποιήσεται οὐδ' ἐκ τοῦ μὴ ὄντος, ἀλλὰ κατὰ μεταθέσεις μὲν πολλῶν, τινῶν δὲ καὶ προσόδους καὶ ἀφόδους. ὅθεν ἀναγκαῖον τὰ μὴ μετατιθέμενα ἄφθαρτα εἶναι καὶ τὴν τοῦ μεταβάλλοντος φύσιν οὐκ ἔχοντα.

690—704: again why do the senses, as Heraclitus says, perceive fire truly, but nothing else? one might just as well deny the reality of fire and affirm that of all other things. 690 *res, rem, rerum*: see n. to 813. 692 *perdelirum* appears to be a ἅπαξ λεγόμ. 693 *contra s. ab s.*: comp. auctor ad Heren. II 9 *communes loci sunt cum accusatoris tum defensoris ab testibus contra testes, abs quaestionibus contra quaestiones, ab argumentis contra argumenta, ab rumoribus contra rumores*; Cic. de inv. I 4 *a mendacio contra verum stare*; ad fam. II 16 2 *ad bellum quidem qui convenit? praesertim contra eum cui spero me satisfecisse, ab eo cui iam satisfieri nullo modo potest*; Quintil. inst. VII 2 31 *alii a propositione accusatoris contraque loci oriuntur.* [See too Draeger hist synt. vol. I p. 579 § 3.] *res contra repugnat* is found in III 353: and Cicero has the same construction. 696 697 that Heraclitus taught that the senses could not truly discern things, is certain: comp. Arist. metaph. I 6 at beg. and the authorities quoted by Bernays heraclitea p. 30; and the hippocratean π. διαίτης as there emended by him, διὰ τούτων [τῶν αἰσθήσεων] γνῶσις ἀνθρώποισιν ἀγνωσίη: but in what sense Heraclitus affirmed the senses could perceive fire truly, is far from clear: one would

have thought that the ξυνὸς λόγος alone could discern the πῦρ ἀείζωον, and that the material fire was as delusive as other things. Surely Lucr. cannot simply mean that, as Heraclitus held fire to be the sole element of things and the only real existence, therefore when sense perceived any other thing, it did not perceive it in its reality: when it perceived fire, it perceived real existence; without his having any expression of Heraclitus to warrant such a conclusion. Did Heraclitus teach that the everliving fire represented motion self-engendered which in a thousand ways, in the human body and through the whole of nature, produces heat or fire? comp. with this some theories of the origin of caloric and the sun's heat: all things else are phases of motion thwarted and turned from its natural course; fire alone gives to sense some apprehension of this real fire and movement at the bottom of all things.
699 *Quo ref.*: comp. 424 *Haut erit occultis de rebus quo referentes Confirmare animi quicquam ratione queamus*; Hor. od. III 6 6 *Hinc omne principium, huc refer exitum*: it is a common meaning of the word in Cicero. 700 *qui*=quo, and refers of course to *quid*: on the infallibility of the senses, one of the foundations of Epicurus' philosophy, see IV 478—521. 701—704 it is usual with Lucr. after going through some important exposition and giving the more general and recondite reasons, to finish by some short argument appealing simply to the common sense of men, or to what they see going on before their eyes: see 759—762, 915—920, 984 (998)—987 (1001). 703 *relinquat*: see n. to 515, and III 40.

705—733: for these reasons all err alike who affirm that any one of the four so-called elements, fire air water earth, is the first beginning of things; or any two of these; or all four, as Empedocles teaches, that famous poet and philosopher of the famous island of Sicily. 705 *Quapropter* connects what follows with what just precedes precisely as in 635: the things formed out of such elements as fire air etc. are as much elements as they are. 707 *principium*: see notes 1 to 834. 710 *rerum naturas*=simply *res*: see n. to II 646. *vertier*: Lucr. has nearly forty of these infinitives, many of them more than once; but in every case the antepenult is long, as is the rule with others who use them, the exceptions being very rare, as *decipier* and *egredier* in Plautus, *accipier* in Novius. 715 *Ex igni, terra, atque anima, et imbri*: Lucr. is very irregular, compared with Cicero, in his use of copulae, mixing *et*, *atque*, *ac*, *que*, in every sort of combination. Often too, as here, contrary to Cicero's usage sentences are partly ἀσύνδετα, partly connected by copulae: comp. II 511, 875, 1063, 1084—5, IV 124, 229, 516—7, V 47, 1283—5, 1353, etc.: [so M. Marcellus ap. Cic. epist. IV 11 1 *amicorum, propinquorum ac necessariorum.*] *anima* is used for the element of air also V 236 *Aurarumque leves animae*; Enn. Epich. 3 *Aqua terra anima sol*, and Virg. ecl. VI 32; Enn. ann. 511 has *spiritus*: Lucr. has also V 1230

ventorum animas, VI 578 and 693 *animai turbida vis*, a sense not uncommon in the poets: Accius 11 *vela ventorum animae immittere*; Aen. VIII 403 *Quantum ignes animaeque valent*; Hor. od. IV 12 2 *animae Thraciae*; Aetna 311. *imbri* for water recurs more than once in Lucr.: 784, 785, VI 149; Enn. ann. 511: Ennius Virgil and Ovid use it for sea-water: Empedocles too 128, 216, 286 has ὄμβρος for water generally. Arist. metaph. I 3 p. 984 at beg. enumerates several of these philosophers from Thales downwards; much longer lists are given by Sextus pyrrh. hypot. III 30 foll.; adv. math. IX 360 foll. and X 310 foll., this last passage occurring almost verbatim in the newly discovered work of Hippol. ref. om. haer. X 6 foll. 716 *quorum* appears to be governed of *cum primis*, not *est*: comp. Cic. de orat. II 224 *sapiens homo cum primis nostrae civitatis.* 717 *triq. terr. oris*, because it is the shape of its coasts that renders its lands triangular: Forc. cites Horace Quintilian Silius for this word applied to Sicily. *gessit* = tulit, 'produced': so *terra gerit fruges, malos platani* and the like: yet the notion may be 'bore in its womb', as VI 790 *semina...Quod permixta gerit tellus.* 718 *Quam*, 720 *Angustoque...a fin. eius*: comp. II 87 *durissima quae sint...neque quicquam a tergo ibus obstet*; IV 962 *Et quo...studio...Aut quibus in rebus...Atque in ea ratione*: this change from the relat. to the demonstr. pron. is not unusual in Latin, though more common in Greek: [it is common in Livy; see Kuehnast p. 58 59.] So Cic. orator 9 *quam intuens in eaque defixus*, and Brutus 258 *omnes tum fere qui nec extra urbem hanc vixerant nec eos aliqua barbaria domestica infuscaverat*: in many cases, perhaps in these passages of Cicero, the relat. could not be repeated: comp. Madv. de fin. I 42 *quod ipsum nullam ad aliam rem, ad id autem res referuntur omnes*: Madvig opusc. II p. 177 and Conington to Virg. geor. II 208 and Aen. VI 101 give other examples of clauses appended to relative ones in divers ways: comp. 154 *Quorum operum...ac fieri* cet.; 684 *quorum...*686 *mutatoque* cet.; 848 foll. *simili quae praedita constant Natura...neque ab exitio res ulla refrenat*; II 140 *in solis quae lumine cernere quimus Nec quibus id faciant plagis apparet aperte*; V 895 *Quae neque florescunt...neque sunt eadem iucunda*: the simpler cases such as those quoted by Conington l. l. where the succeeding clauses are 'in material, but not in formal connexion' with the relative clause, are exceedingly numerous in Lucr.: comp. 21 foll. 58 foll.: as indeed in all writers, the Latin idiom making them not easy to avoid: [so auct. bell. Afr. 64 1 *quem Caesar.. dimiserat et postea se ad Pompeium contulerat*:] much harsher is Livy X 26 6 *sunt, quibus ne haec quidem certamina exponere satis fuerit, adiecerint* cet. *Ang. fretu* seems governed by *rapidum*, the sea is rendered rapid by the narrowness of the channel: Livy XXVIII 30 6 *deprensam rapido in freto*, of the straits of Gibraltar. *fretu*: Gell. XIII 21 15 quotes Cic. Verr. V 169 *perangusto fretu divisa* of this same strait: Charisius I, p. 129 7 Keil,

quotes from Messalla *angustiae fretus*, from Cicero *a Gaditano fretu*, from Augustus to Antonius *fretu cessi*: Cic. pro Sestio 18 Halm restores *fretu* from P 1: Lucr. VI 364 has *fretus* nom. 722 *vasta Char.* is found in Catullus and Virgil: *vasta* implies that in which nothing lives. *minantur...se coll.*: Plaut. asin. 604 *ab hac minatur sese abire*; Pseud. 776 *Interminatust leno .. Eum cras cruciatu maximo perbitere*: [see Ussing to asin. 439 597 and 604 :] this use of the pres. infin. for the fut. is found after many similar verbs, such as *promitto*, *dico*, *nego*, *testor*, *decerno*, see Wagner Ter. index s. v. Infinitive: *censeo*, see Drakenb. Livy II 5 1: *spero*, etc. as auctor ad Heren. II 28 *sperabat illius morte se salutem sibi comparare*; Ter. eun. 520 *sperat se a me avellere*; Caes. ap. Cic. ad Att. IX 13 A, *cum in spem venero...aliquid me conficere*: the idiom occurs even in Cicero, as ad Att. I 1 1 *eo ipso tempore quo tuum puerum...proficisci Cincius dicebat.* 723 foll. observe *rursum*, *iterum*, *rursum.* 724 *Faucibus*: VI 701 *crateres, ut ipsi Nominitant; nos quod fauces perhibemus et ora.* *eruptos ignes*: so V 598 *erumpere lumen*; VI 583 *erumpitur*; Cic. Arat. 111 *erumpit flatibus ignes*; ad Att. XVI 3 1 *ne in me stomachum erumpant*; [Caes. b. civ. II 141 *portis se foras erumpunt*: see here Kramer (Hofmann).] So Lucr. IV 1115 *se erupit*: *prorumpitur* is also found in Lucr. *iterum* 'anew' 'once more', without any reference to the number of previous eruptions.
726 the constr. is *quae, magna, videtur multis modis miranda.* *cum... tamen videtur*: see n. to 566. 727 *visenda* used in this sense by Cic. Verr. IV 132 and 135. 728 Wak. cites Aen. I 271 *Longam multa vi muniet Albam*; but the sense differs: *munita* is here metaphorical.
730 *carum* means 'precious', τίμιον: comp. Livy XXXV 21 16 *omnia quae hominibus sancta caraque sint*; XXI 60 9 *omnibus fere caris rebus...citra Pyrenaeum relictis*; XXII 42 6 *omnia cara in promptu relicta*; Sall. Iug. 100 3 *perfugae minime cari*; Nepos VII 11 6 *ut, apud quoscumque esset, princeps poneretur habereturque carissimus*; [Caes. b. c. III 59 3 *ni propter virtutem non solum apud Caesarem in honore erant, sed etiam apud exercitum cari habebantur*; b. Alex. 60 *nobilissimae carissimaeque possessiones Cordubensium*; b. Afr. 91 2 *quo .. omnem pecuniam carissimasque res comportaverat*; b. Gall. V 33 6 *quae quisque eorum carissima haberet.*] 731 *pectoris* the seat of the heart and intellect, and therefore of poetical genius: see n. to 413. With the rhythm of the v. comp. Catul. 64 383 *Carmina divino cecinerunt pectore Parcae.* 732 it is not easy to say whether *vociferantur* is neut. as II 1050 *res ipsaque per se Vociferatur*; or act. as III 14 *ratio tua coepit vociferari Naturam rerum*: both constr. are found in Cicero too. 733 Lucr. may have been thinking of what Empedocles says of himself 392 ἐγὼ δ' ὔμμιν θεὸς ἄμβροτος οὐκέτι θνητὸς πωλεῦμαι μετὰ πᾶσι τετιμένος, ὥσπερ ἔοικε. He no doubt looked upon Empedocles' poem περὶ φύσεως as in some sense his poetical model, and therefore thought he owed him a debt of grati-

tude. With many differences there were also many points of resemblance between their two systems; this especially that the first-beginnings of each were imperishable, and that life and death were but the passing to and fro of elements into things, and things into elements. All this being considered, we may grant that his lofty panegyric is justified by the large fragments we possess of Empedocles' chief poem, nearly 400 out of 2000 verses: yet the *vociferantur* cet. stands in striking contrast to Aristotle's ἃ ψελλίζεται λέγων Ἐμπεδοκλῆς: but that stern judge is referring to the imperfect utterance of the first philosophy yet in its infancy, as may be seen a few pages later in the last chap. of metaph. I; and we learn from Diog. Laert. VIII 57 that Aristotle recognised his poetical genius, ἐν δὲ τῷ περὶ ποιητῶν φησιν ὅτι καὶ Ὁμηρικὸς ὁ Ἐμπεδοκλῆς καὶ δεινὸς περὶ τὴν φράσιν γέγονε, μεταφορικός τ' ὢν καὶ τοῖς ἄλλοις τοῖς περὶ ποιητικὴν ἐπιτεύγμασι χρώμενος.

734—762: he and the others have given responses truer than those of Phoebus; yet all alike have gone to wreck on the first-beginnings of things; they deny a void in things, yet give them motion and leave them soft and rare; and they set no limit to the division of things; if first-beginnings are soft, they were born and will die; all things therefore have come from and will return to nothing: again such elements are hostile one to the other; and thus, like lightning clouds winds, will be apt to fly asunder one from the other rather than combine. 734 *tamen*, is repeated in 740. *supra*, 705 foll.: *quos diximus*, Thales Pherecydes Anaximenes, Diogenes of Apollonia, Hippasus Xenophanes Oenopides, Hippo of Rhegium, Onomacritus, Idaeus of Himera, Archelaus and the rest. 735 *egregie* from its place seems to go with *multis*: IV 342 *multis partibus hic est Mobilior multisque minutior*; Caes. de bel. civ. III 84 *numero multis partibus esset inferior*: *mul. part.* is used with the same force by Caesar ibid. 80; Caelius ap. Cic. ad fam. VIII 9 3; Cicero himself ad fam. I 2 2, de fin. III 36; Suet. I 68: Cicero uses *omnibus partibus* with much the same force, which *egregie multis* has here; see Madv. de fin. II 108. 737 *adyto cordis* of course with reference to the illustration which follows: Ov. met. XV 145 *augustae reserabo oracula mentis.* 738 Lucr. was prob. thinking of Callim. in Del. 94 where Apollo says Ἀλλ' ἔμπης ἐρέω τι τορώτερον ἢ ἀπὸ δάφνης. 739 Aristoph. Plut. 39 τί δῆτα Φοῖβος ἔλακεν ἐκ τῶν στεμμάτων, taken with Eur. Or. 321 τρίποδος ἄπο φάτιν, ἂν ὁ Φοῖβος ἔλακεν ἔλακε and Iph. Taur. 951 Ἐντεῦθεν αὐδὴν τρίποδος ἐκ χρυσοῦ λακών, exactly expresses the v. of Lucr. who translates the oracular ἔλακεν by *profatur*. '*tripodas laurosque sequi* Stat. Theb. VII 707; Ammian XXIX I 28 sqq.' J. E. M. The Pythia, when seated on the tripod appears to have been surrounded with garlands of the bay-laurel; the smell of which was supposed to increase the prophetic afflatus, excited by the cold air which came out of the deep cleft: they are the στέμματα of Aristophanes, the δάφνη of Callimachus, the

laurus of Lucr.: to them Pind. ol. VII 32 alludes in εὐώδεος ἐξ ἀδύτου. Hom. hymn. Apoll. Pyth. 215 Χρείων ἐκ δάφνης γυάλων ὑπὸ Παρνησοῖο. There is much uncertainty with regard to the details of the Delphic tripod, as may be seen in Wieseler's very diffuse dissertation upon it. 738 739 recur V 111 112: with the abl. *tripodi* Lach. compares II 416 *Cilici*, III 132 *Heliconi*. 740 *fec. ruinas*: metaphor from a building or other heavy body falling; perhaps from a carriage breaking down; Horace has the same expression: Lucr. uses more than once the more common *dare ruinas*: see n. to IV 41 *discessum dederint*: Cic. de fin. I 18 applies the same metaphor to Epicurus himself, *illae Epicuri propriae ruinae*; and II 18 *ruit in dicendo*. 741 after Homer's κεῖτο μέγας μεγαλωστί, which Virgil and Ovid imitate in various ways, *graris graviterque ad terram concidit, ingentem atque ingenti vulnere victum, magnum magno conamine* and the like: Lucr. himself IV 902 *magnum magno molimine navem*. *ibi* is here very emphatic, and therefore its unusual position gives it additional force.

742 *motus* cet. the impossibility of which without void he has proved at such length above 335—397: Empedocles 63 thus denies void, Οὐδέ τι τοῦ παντὸς κενεὸν πέλει οὐδὲ περισσόν: comp. too Arist. de gen. et corr. I 8 where he elaborately criticises Empedocles' doctrine of πόροι and of the motions and unions of things by means of these without void; and shews that his πόροι must really mean much the same as the κενόν of Leucippus, though Empedocles maintains a πλῆρες; he concludes that this system of πόροι is ἢ ψεῦδος ἢ μάταιον. 745 *admiscent in corpus*: Pliny nat. hist. XXVI 104 has same constr. 747 *pausam*, a word occurring six times in Lucr.; found also in Plautus Ennius Accius, and again brought into use by Gellius Apuleius and other imitators of the older writers. *fragori*: Lucr. almost alone appears to use this word in its literal sense, here and V 109 317; and perhaps in the two last places the meaning is transitional: yet Sen. Herc. Oet. 121 *Nos non flamma rapax, non fragor obruit*. 748 *nec prorsum*=et prorsum non, omnino non: comp. 1005 *Nec prorsum facere*; III 45 *Nec prosum quicquam nostrae rationis egere*; 1087 *Nec prorsum...demimus hilum Tempore de mortis*; Cic. de fin. II 17 *non prorsus, inquit*; de nat. deor. III 21 *nullo modo prorsus adsentior*; [Lael. 57 *nulli prorsus adsentior*: see Mueller (Seyffert) p. 213:] Plaut. trin. 129 *nullo modo Potest fieri prosus*: most. 307 *Qui invident, numquam eorum quisquam invideat prosus commodis*; asin. 236 *Nec quemquam interea alium admittat prosus*; Ter. Andr. 435 *nihil prorsus*; heaut. 894 *nihil prorsum*; but 776 *prorsum nihil*, in same sense; the antiquarian Apuleius has many instances: met. III 14; IV 23; 30; X 10; 15; 23. Cic. acad. post. 27 speaking of peripatetics and academics will illustrate Lucr. *eaque etiam interire, non in nihilum, sed in suas partes quae infinite secari ac dividi possint, cum sit nihil omnino in rerum natura minimum quod dividi nequeat*:

here is asserted of them exactly what Lucr. objects to, the *cum sit nihil om. in rer. nat. minimum* seeming a prose translation of 748; yet at the same time is denied the inference that they pass away *in nihilum*, which Lucr. below 756 maintains must follow. Empedocles himself 77 and 81 strenuously denies the same, *φύσις οὐδενός ἐστιν ἁπάντων Θνητῶν οὐδέ τις οὐλομένου θανάτοιο τελευτή κ.τ.λ.* and *ἔκ τε μὴ ὄντος ἀμήχανόν ἐστι γενέσθαι Τό τ' ἐὸν ἐξόλλυσθαι ἀνήνυστον καὶ ἄπρηκτον*: Lucr. therefore here as elsewhere is refuting them from his own point of view. **749**: see the full explanation of this passage in n. to 599. **750** *ad sensus nostros* appears to be used simply for the dative: comp. IV 1062 *obversatur ad auris*; Prop. I 18 29 *quodcumque meae possunt narrare querellae, Cogor ad argutas dicere solus aves*; Catul. 61 215 *Dulce rideat ad patrem*; Cic. ad Att. VIII 3 6 *invidiosum ad bonos*: thus we find, espec. in the older writers, *dare ad*, *promittere ad*, *restituere ad*, etc. [Comp. too III 830 *Nil igitur mors est ad nos* and n. there.] **751** *quae cernere non quis* are of course the atoms; as 600 *Corporis ill. q. n. cernere sensus Iam nequeunt.* **754** *quae* nos *nativa vid. Esse et mortali cum c.*: yes but Empedocles saw them to be as immortal as the atoms of Epicurus: comp. 178 *Αἶψα δὲ θνήτ' ἐφύοντο τὰ πρὶν μάθον ἀθάνατ' εἶναι*: they are *θνητά* when in things, *ἀθάνατα* by themselves. **755** *Esse et mort. cum corp.* with same force as simple abl.: so 347 *esse...raro cum corpore*; 774 *non exanimo cum corpore*; V 352 *quia sunt solido cum corpore*; 364 *solido cum corpore mundi Naturast*; 904 *triplici cum corpore*; VI 439 *lento cum corpore nubem*; 631 *raro cum corpore tellus Est*; 1059 *raro quia sunt cum corpore*: III 201 *quaecumque magis cum pondere magno Asperaque inveniuntur*, *cum* has the same force; and IV 1126 *grandes viridi cum luce zmaragdi*; V 864 *canum fido cum pectore corda*; VI 5 *virum tali cum corde repertum*; 75 *placido cum pectore adibis.* *utqui* of mss. is to be retained here, and in II 17, and is to be read in II 428 and III 738, as shewn by N. P. Howard in Journ. of philol. I p. 118—121: in my last edition I had already given *ut qui* in III 738, and had intended to give it in the last two places, before I received Mr Howard's letter. But he is right I think in attaching the *qui* enclitically to *ut*: the *qui* is an affirmative particle and has the same force as in *atqui*: 'yes that' or the like: see espec. Fleckeisen krit. Miscellen p. 23—33, who shews from Plautus that *qui* often has this force in *hercle qui*, *edepol qui*, *ecastor qui*, *at pol qui*: and in *quippe qui*, in places where *qui* cannot be a relative: and in *utqui* (*ut qui* he writes it), from the same passages of Plautus that Mr Howard has cited; such as trin. 637 *An id est sapere, utqui beneficium a benevolente repudies*; capt. 553; asin. 505. It is probable that this *qui* lurks in other corrupt passages: thus in the letter of Balbus, an unpolished writer, Cic. ad Att. VIII 15 A 2, I unhesitatingly propose *nam illum tanti facio*, utqui [*qui* mss. *ut* Lamb. etc.] *non Caesarem magis diligam*; which would resemble Plaut. Bacch. 283

Adeon me fuisse fungum, utqui illi crederem. This *qui* prob. soon became obsolete, except in *atqui.* [Comp. also Cic. de nat. deor. II 143 Swainson, and the first sentence of his epistles, *tanta enim magnitudo est tuorum erga me meritorum utqui* (so mss.), *ut tu nisi perfecta re de me non conquiesti, ego...putem*: here *ut*=quoniam, quia, as V 3 1 *et, ut sunt leves ab eiusmodi homine, a me despiciuntur*; XIII 69 2 *etsi ut eius modestiam cognovi, gravis tibi nulla in re erit*; 8 3 *ut ego illi uni plurimum debeo*; XVI 6 2 *ut ego euntem Patras neminem praetermitto*; Virg. Aen. XII 488 *Huic Messapus, uti laeva duo forte gerebat Lenta* cet.; *Hasta volans, ut forte...constiterant.*] 756 see n. to 748: 756 and 757 are almost a rep. of 673 674. 758 *iam* belongs to *habebis*: comp. 649, and see n. to VI 176. *habebis*: III 831 *mortalis habetur*; Virg. ecl. II 2 *nec quid speraret habebat*; Ter. Andr. 498 *Teneo quid erret et quid agam habeo*: this sense is common in Cicero, as ad Att. I 12 4 *quid praeterea ad te scribam non habeo.* 759—762: see n. to 701—704, and 984 (998) foll.: he here too concludes a discussion with a short argument addressed to the common sense or the eyesight of his readers. 759 *veneno*: Wak. and Lach. quote Varro de re rust. I 2 18 *quaedam enim pecudes culturae sunt inimicae ac veneno.* 761 *coacta* seems to have somewhat the same sense here, as VI 274 *cogit*, 464 *cogunt*, 718 *cogentes*, 511 *Copia nimborum turba maiore coacta*; but I know no exact parallel. 762 *fulm. imbr. vent.* representing three of the four elements.

763—781: things too might just as well be their elements, since things by turns come from them and pass into them: but if you say that these elements remain unchanged in things, then nothing can be produced from them, since in everything they will shew their own several natures: first-beginnings must have no properties that sense can apprehend. 766 i.e. res. ill. prim. dici retroque p. 767 *Alt. gign.*: the ever-recurring μίξις τε διάλλαξίς τε μιγέντων. 769 *ab*: see n. to 554. 771 *rorem liq.*: see n. to 496. 774 *Non an.* res, *non* res *ex. c. cor.*: only here and in III 573 he uses *animans* in the nomin. and as an adj. [*non ex. c. cor.* might perhaps be compared with Livy III 57 9 *non iuniores modo sed emeritis etiam stipendiis...praesto fuere*; XXI 62 5 *multis locis hominum specie procul candida veste visos.*] 775 foll. much resemble his criticism of Anaxagoras below 880—896, and II 915 foll. 778—781 are fully explained II 730—885, where it is shewn that atoms have no sensible properties. 778 *oportet* is perhaps a μείωσις, as *difficile est, haut facile est*, etc.: see n. to III 361; and Livy VII 35 6 *sopitum oportet fallatis, immo necesse est.* 779 *cland. caec.* are joined II 128 *motus.. clandestinos caecosque.* 781 *proprie esse* is to exist by itself with its own peculiar properties and functions undisturbed by anything alien: VI 985 *quisque* [sensus *suam proprie rem percipit in se.*

782—802: again they suppose these elements to pass into each other in this ceaseless round, fire air water earth water air fire: but first-beginnings cannot thus change; they must be eternal, and of such a nature that when some go away, others join, and the rest change their order, those which made fire may now make air or anything else.—It is possible enough that Lucr. viewing Heraclitus through the glosses of the stoics, may have been thinking among other theories of his ὁδὸς ἄνω κάτω: but no one will now attribute to the Ephesian this interchange of the *four* elements: by the vague 'they' Lucr. no doubt points mainly at the stoics; whose champion says in Cic. de nat. deor. II 84 *cum quattuor sint genera corporum, vicissitudine eorum mundi continuata natura est. nam ex terra aqua, ex aqua oritur aer, ex aere aether; deinde retrorsum vicissim ex aethere aer, inde aqua, ex aqua terra infima. sic naturis iis, ex quibus omnia constant, sursus deorsus ultro citro commeantibus mundi partium coniunctio continetur*: and comp. ib. III 31. Martian. Cap. VII 738 p. 592 Kopp *ex informi materie* (their ἄποιος ὕλη) *primus ignis, ex igni aer, ex aere aqua, ex aqua terra; item fit adscensio et ex terra aqua est, ex aqua aer, ex aere ignis, ex igni in* cet.: with 787 788 too comp. Emped. 122: for him also Lucr. must partially include: ἀλλ' αὔτ' ἔστιν ταῦτα δι' ἀλλήλων δὲ θέοντα Γίγνεται ἄλλοθεν ἄλλα διηνεκὲς αἰὲν ὁμοῖα: which are repeated with some difference 136 137. 782 *repetunt a*: thus used without an object by the auctor ad Heren. I 15 *ne ab ultimo repetamus*; Cic. pro Archia 1 *inde usque repetens*; de orat. I 91 *cum repeteret usque a Corace nescio quo et Tisia*; Aen. I 372 *si prima repetens ab origine pergam.* 783 *auras Aeris*: 801 *aeris auras*: see n. to 207. 784 *imbrem.. imbri*: see n. to 715. 787 *inter se mutare*: comp. VI 456 *haec comprendunt inter se*: this is the regular Latin idiom: thus Cicero has *inter se amare, colere, diligere, vereri, consalutare, adspicere*; and similarly Plautus, Caesar, Nepos, Livy, Tacitus, etc. [Caesar has several times *inter se cohortati.*] 788 *sidera mundi*, imitated by Virgil who has also *astra mundi, lumina mundi*: *mundi* here, as often in Lucr. and others, = caeli: Catul. 64 206 *concussitque micantia sidera mundus.* 790 791 the same in meaning as 672 673, though the expression is varied; while 792 793 are exactly repeated from 670 671, where see note. 794 *quae* i.e. the so-called four elements. 795 *In comm. ven.* seems to resemble the very common phrases *venire in discrimen, periculum, odium, contemptionem, consuetudinem* and the like: *commutatum*, a ἅπαξ λεγόμ. = commutationem: see n. to 653. 796 *ea* the four elements: *ex aliis quae* etc. such other *primordia* as cannot change. 797 *tibi*: Lucr. is fond of this dativus ethicus as they call it: this very line occurs four times: comp. also 733 *Nulla tibi ex illis poterit res esse creata*; 918 *tibi pereunt primordia rerum*; II 500 *Iam tibi* cet.; 1038 *Quam tibi iam nemo* cet.; III 197 *ut ab summo tibi diffluat altus acervus*; 279 *Sic tibi nominis* cet.; IV 511

Illa tibi est igitur; 875 *tibi anhela sitis*; v 260 *terra tibi libatur*; 294 *nocturna tibi*; 805 *Tum tibi terra dedit*; 1209 *Nequae forte deum nobis* cet.; III 992 *Tityos nobis hic est.* 798 *Quin potius.. constituas?* most writers would here prefer the indic.; but comp. Plaut. epid. III 4 19 *Quin tu alium quaeras cui centones sarcias?* Cic. de rep. VI 14 (somn. Scip. III) *quin tu aspicias ad te venientem Paulum patrem?*—so all mss., rightly, I think; but Halm reads *aspicis*. That his atoms do thus work he will abundantly shew in the second book; and indeed it is reiterated in the next paragraphs 817—829, 902—920. 802 *sic*=et sic, and couples this line with what precedes.

803—829: but, you will say, all these four elements are necessary for the production of things: true; and without meat and drink life cannot continue: the reason is the same in both cases: many first-beginnings are common to many things; and the same by various mixtures motions and the like may produce the most different things; just as the same letters go to quite different words. 803 foll. you see the earth out of which, the air into which all things grow; the rain and sun by which they grow. 805 *indulget* gives full play to: so Virgil *indulge ordinibus, hospitio*; and Livy *indulgere ardori militum.* 806 *tabe nimborum* appears to have much the force of VI 521 *nimbi rigantes*: the *nimbi* melt into water: comp. the metaph. VI 514—516: but perhaps it is better to make *tabe* refer to the trees: the force of the *nimbi* seems to make them dissolve into water; comp. Aen. I 173 *sale tabentis artus*: III 19 the *nimbi* are the actual rain-storms shed from the *nubila*. *tabē*: this line is quoted by Priscian inst. VII 72 for the *ē* of *tabe*: comp. III 734 *contagē*: C. F. W. Mueller Plaut. pros. p. 15—18 throws great doubt on *ē* of the abl. of the 3rd decl. in Plautus. 808 *possint* is potential: so II 989 *queant*; v 210 *si non cimus, nequeant*; 768 *si fulget..., cur nequeat*; II 922 *Scilicet ut nequeant*, where Lach. after Bentl. reads *nequeunt*. *animantis*: this is one of 14 cases in which *-is* has been retained by me in the nom. plur. after Lach. on the authority of both A and B: the other cases occur in II 577, 955, 1155, IV 452, 1203, 1221, v 216, 494, 524, 525, 1072, VI 221, 936: see Lach. p. 56 and introduction vol. I p. 36: among these 14 examples we find indifferently participles adjectives and substantives: and this quite agrees with all other testimony on the subject. 809 here begins the poet's answer: yes, and meat and drink feed the body; yet the body's first-beginnings are not meat and drink. *cibus aridus*, as 864: *tener umor* occurs in Virg. geor. II 331. 813 *certis*: see n. to 521. *ab* joined with things is not uncommon in Lucr.: III 323, 429, 522, 567, v 358. 813—816 notice *res* 5 times repeated in three vss. and the antithetical and alliterative form of the whole sentence; and comp. 893—897 where *res* likewise occurs 5 times: also 690 691 *res, rem, rerum*; IV 42 43 *rerum, rebus, rerum*, and many such like: assonances and alliterations of all kinds seem to possess for Lucr. an

irresistible attraction: such repetitions of *res* are common in Cicero and Caesar. [Comp. Plaut. Epid. 113 *Is est amicus qui in re dubia re iuvat ubi rest opus.*] *ratio* is nearly as great a favourite as *res*: I 128—130 *ratio, ratione, ratione*, and in different senses. *corpus, corpora* too are used with like frequency: see also note to 875, where however the instances are to our taste more faulty. 814 foll. give his own doctrine so often repeated. 817 foll. repeated with slight change 908 foll. and II 760 foll. 819 *dent motus* here and in the four repetitions means, impart motion to others; II 311 *dat motus* is 'moves itself': comp. *dare ruinam* and the like, and n. to IV 41. 823 foll. this illustration occurs several times in the poem, as 197 and 912 foll.: the 24 letters of the alphabet can form an enormous number of permutations; how many more then these *primordia*, the different shapes of which are so many times more numerous than those letters, while the number of atoms of each shape is infinite, as shewn in the 2nd book? Arist. de gen. et corr. I 2 in illustrating precisely the same doctrine of Democritus and Leucippus, adds p. 315 b 14 ἐκ τῶν αὐτῶν γὰρ τραγῳδία καὶ κωμῳδία γραμμάτων. 826 *sonitu sonanti*, a mere poetical assonance, like *anxius angor, penitus penetrari, fera ferri, apparet aperte, domi domitos, semine seminioque, fera saecla ferarum, misero misere, Nec validas valeant*: comp. Aen. II 53 *cavae cavernae.*

830—874: the homoeomeria of Anaxagoras is equally erroneous: all simple substances he supposes to consist of infinitely small particles of the same nature as the thing: bone of minute bones, gold of grains of gold, earth of little earths, and so on: he denies too void and any limit to the division of things, like those above mentioned: such first-beginnings as these cannot resist destruction; so that things would return to nothing. Again, as food increases the body, the parts of the body are formed of things different in kind: or if you say all food has particles like the parts of the body contained in it, then meat and drink consist of particles different in kind: the same dilemma will apply to what grows out of the earth, to flame latent in wood, and the like.—That Lucr. had much sympathy with Anaxagoras will be seen at II 991 foll. where he translates from Euripides and adapts to his own purpose a passage founded upon Anaxagoras' system. There were also other points of contact: Anaxagoras held, as did Epicurus, that the sum of matter in the universe was always the same, and that nothing could pass into nothing. Though Lucr. 847 foll. tries to shew that Anaxagoras' principles lead to a different conclusion, he says, frag. 22 Schaub. (17 Schorn), in words that Epicurus might have adopted, τὸ γίνεσθαι καὶ ἀπόλλυσθαι οὐκ ὀρθῶς νομίζουσιν οἱ Ἕλληνες· οὐδὲν γὰρ χρῆμα γίνεται οὐδ' ἀπόλλυται, ἀλλ' ἀπ' ἐόντων χρημάτων συμμίσγεταί τε καὶ ἀποκρίνεται. The many points of difference Lucr. himself clearly shews: see also the editor's note 21 to Archer Butler's lectures on ancient philos. I p. 322. His refutation of

Anaxagoras much resembles even in language his argument against Empedocles; though Aristotle from his different point of view is fond of contrasting the two. 832 *patr. serm. eg.*: see above p. 11: and n. to 139: these words are quoted by Pliny epist. IV 18.

834 *homoeomerian*: the word is not found in the few extant fragments of Anaxagoras, but Lucr. distinctly here states that he did use it; as well as Plut. de plac. phil. I 3, ὁμοιομερείας αὐτὰς ἐκάλεσε, and Simplicius to whom we owe so many of the scanty fragments. Lucr. seems to denote by the term the relation which existed between the things in being and the particles like in kind, of which they were composed; ἄπειρα, as Anaxagoras says in frag. 1, καὶ πλῆθος καὶ σμικρότητα: these he himself names σπέρματα or χρήματα, Aristotle τὰ ὁμοιομερῆ στοιχεῖα, ἀόρατα ὁμοιομερῆ, and the like: the later Greeks call them ὁμοιομερεῖαι in the plur. probably from some misconception. Often as Aristotle uses the adjective, he never employs the substantive, and Lucr. was hitherto the oldest authority for the latter; but now I am glad to say I can trace it back to Epicurus: see frag. 6 of the 28th book of the περὶ φύσεως, Gomperz Zeitschr. f. Oesterr. Gymn. vol. 18 p. 212, τό γε [στοιχεῖον] ἤδη τὴν ὁμοιομέρειαν τῷ φαινομένῳ κεκτημένον. Epic. here, as Gomperz explains, seems to be combating the Timaeus of Plato; but he uses it exactly in the sense I had supposed Lucr. and Anaxag. to have used it, 'the element possessing similarity of parts with the thing in being'. As he and his school were so well acquainted with Anaxagoras, I do not doubt that he got the word from the latter's writings, and that Lucr. had it from them and from Epic.; though Schleiermacher, Zeller and many other Germans refuse the term to Anaxagoras himself. 835 foll. most of the examples here given are found in Aristotle Simplicius and others, so that they were doubtless employed by Anaxagoras himself; but to shew the difficulty of knowing in the absence of their writings what these early philosophers taught, while Lucr. includes, as we might expect, earth and fire among the simple bodies formed of their ὁμοιομερῆ, Aristotle more than once distinctly states that, while bone, flesh, etc. were simple, earth and fire were σύνθετα and mixed acc. to Anaxag. in contrast to Empedocles with whom of course they were elements; and again in metaph. I 3, unless you are to force his words, as Bonitz does, he flatly contradicts himself and agrees with Lucr. Again we have no evidence to shew how Anaxag. supposed these mixed bodies to be formed, and Lucr. seems in what follows to feel perplexed; or how he conceived organised things, such as the bodily organs, to be formed, which Arist. de caelo III 4, p. 302 b 24, distinctly states he did not form of ὁμοιομερῆ. 835 836 *pauxillis, minutis*, to express what Anaxagoras taught were infinite in smallness. 837, 853, 860 *sanguen* is found thrice in Ennius, twice in Accius, and in Petron. 59. 837 *viscus, viscera*, occur very often in Lucr. and always I believe denote the whole of the flesh and soft sub-

stance between the skin and bones: *viscus, visceris,* and twice *viscere* are found in Lucr. 839 *auri*: see notes 1: not only Simplicius there cited, but also Philoponus and Laertius use this illustration: which no doubt comes from Anaxagoras himself. 841 *Ignibus ex*: II 731 *albis ex alba,* 791 *sed variis ex,* III 375, 839, 858 and V 949 *quibus e*; VI 788 *terris ex omnia surgunt*; IV 804 *siquae ad*: as Cic. de nat. II 10 *quos ad*: 597 *Haec loca per*; V 770 *loca .. inimica per exit*; 1264 *viam per*: VI 747 *Cumas aput,* 940 *Qua de* are more usual. Lucr. is fond of this order, adj. prepos. and then a word intervening between it and the subst.: III 10 *tuisque ex, inclute, chartis*; IV 829 *validis ex apta lacertis*: with these comp. Virg. ecl. VI 19 *ipsis ex vincula sertis*: VI 714 *medium per saepe calorem*; 855 *supera de reddere parte*; 1202 *capitis cum saepe dolore*; IV 472 *sua in statuit vestigia*; III 421 *uno sub iungas nomine*; V 869 *suo sine pabula parta labore*: comp. too Ov. trist. IV 4 74; ex Ponto I 2 150; IV 10 2; 14 15; German. 373: VI 1160 *noctem per saepe diemque* is of the same nature. 843 *ulla parte, parte ulla, multis partibus* and the like are common in Livy and others without any preposition, as well as with: why refuse the same liberty to Lucr.? Livy X 14 10 *ubi nulla ex parte hostem loco moveri vidit*; 16 *nec parte ulla pelli aut perrumpi potuit.* 844 so he himself in terms repugnant to an epicurean, frag. 5 (15) οὔτε τοῦ σμικροῦ γέ ἐστι τό γε ἐλάχιστον, ἀλλ' ἔλασσον αἰεί. τὸ γὰρ ἐὸν οὐκ ἔστι τομῇ οὐκ εἶναι κ.τ.λ.: τομῇ Zeller for τὸ μή. 846 *illi,* Empedocles and the rest: see 734 foll. 848 *Si prim. sunt, sim.* etc.: Anaxagoras gives to his particles, frag. 3 Schorn, χροιὰς καὶ ἡδονάς, colour and taste; while Lucr. in II takes such pains to prove that his atoms can have no secondary qualities: again frag. 16 Anaxagoras says that as there can be no minimum, his particles cannot exist alone, ἀλλ' ὅκως περὶ ἀρχήν, καὶ νῦν πάντα ὁμοῦ: to Lucr. an absurdity, who will only reason from his own premisses. 850 *neque* [eas] *refrenat*: see n. to 718. 851 *oppressu* may be added to the words enumerated in n. to 653. 852 *sub dent.*: *faucibus* is a more common metaphor: Lamb. quotes Arnob. II 32 *non esse animas longe ab hiatibus mortis et faucibus constitutas*; but Lucr. agrees better with our use of 'jaws of death': join 'in oppressu valido sub ipsis leti dentibus'. 859—866 a dilemma: food supports the body: are the particles ὁμοιομερῆ with the food? then veins, blood etc. consist of what is not ὁμοιομερές with it: or if you say that every kind of food has in it whatever the body has, bone vein blood, then will meat and drink consist of particles not ὁμοιομερῆ with them: again the poet's own premisses assumed. Plut. de plac. phil. I 3 proves what effective use Anaxagoras must have made of the fact of food nourishing at once all the parts of the body, so different from each other and from the food itself. 863 *omnino,* to complete the list, go through all the parts specified. 864 *cibus om.* including all nourishment, drink as well as meat, *et aridus cibus et liquor*: *ipse* means 'as well as dry

food'; it=etiam. 865 *alienigenis* is the opposite to ὁμοιομερής. 866 *sanie*: Celsus v 26 20 *est enim quaedam sanies quae vel ἰχώρ, vel μελίκηρα nominatur*: ἰχώρ is a hippocratean word and is often used by Aristotle for the serous part of blood, as here by Celsus: now comp. Arist. part. anim. I 1, p. 487 a 1, ἔστι δὲ τῶν ὁμοιομερῶν τὰ μέν . . τὰ δέ . . ὑγρὰ μὲν οἷον αἷμα ἰχώρ . . ξηρὰ δὲ καὶ στερεὰ οἷον νεῦρον . . ὀστοῦν etc.: here we have the *ossibus, nervis, sanie, sanguine* of Lucr. enumerated: comp. too Heraclit. letters 5, p. 50 l. 27 Bern., ὃ δοκεῖ τοῖς ἄλλοις ζῆν ἐν φλέγμασι καὶ χολῇ καὶ ἰχῶρι καὶ αἵματι, νευροῖς καὶ ὀστοῖς καὶ σάρκεσι πεπιλημένον. 867—874 a similar dilemma, which the lost vss. render obscure: trees and the like grow out of the earth; therefore the earth consists not of ὁμοιομερῆ, but of minute trees and the like: flame smoke ash are latent in wood; therefore wood consists of minute flames etc. not of ὁμοιομερῆ: again trees when above ground are fed out of the earth: if the earth consists of ὁμοιομερῆ, then trees are fed and increased by things not ὁμοιομερῆ; and similarly of the flames which are seen to be fed by wood. 870 *Transfer*: Cic. de off. I 51 *quod ab Ennio positum in una re transferri in multas potest*; Sen. epist. 65 3 *quod de universo dicebam, ad haec transfer.*

875—896: Anaxagoras tries to extricate himself by assuming that everything is latent in everything; but that that only is perceived, of which the like particles are most numerous and most prominent: a manifest fallacy; for then corn, grass, water, clods, wood would shew when reduced to small fractions traces of blood, milk, fire, etc. i.e. portions of things fed by or produced from them respectively: the truth is that the seeds of things have no qualities like to those of things in being. 875 *latit.*: comp. Cic. de fin. II 107 *si tuam dicerem, latebram haberes*; [Sen. rhet. controv. praefat. I 1 21 *ipsa enim actio multas latebras habet.*] Notice *latitandi* and 877 *latitare* in two different senses with nothing in common. Lucr. like the old Latin writers generally, loves as we have said assonance alliteration antithesis and the like so dearly, that often the use of a word seems to suggest to him a repetition of it, without any point whatever, and therefore to our taste faulty: see n. to 813—816; and comp. 893 *docet res, Scire licet non esse in rebus* cet.; 976 *exempta fine* with 978 *finique locet se* and 979 *non est a fine profectum*; 975 *effugium praecludit* with 983 *Effugium...prolatet*; II 714 *caecis Corporibus fugiunt e corpore*; 1018 *discrepitant res*: *Sic ipsis in rebus*; III 364 *Lumina luminibus*; 379 *Corpora . . in corpore*; 451 *validis quassatum est viribus aevi Corpus et obtusis ceciderunt viribus artus*; VI 718 *Cogentes sursus replent coguntque manere* and the like. 879 almost repeated IV 97 *In promptu quoniam est in prima fronte locata*: in both cases *in promptu* is not connected with *locata*: comp. the other examples of its use in Lucr. Cicero etc. 875—879 this which Lucr. declares to be a sorry subterfuge, was in fact the very corner-stone of Anaxagoras'

physics. His particles were infinite in number and smallness; from the necessity of the case everything was mixed with everything, except only his νοῦς: his νοῦς, see fr. 6 (7), was mixed up with nothing, because if mixed up with anything, then it must have been mixed up with everything: but ἐν παντὶ παντὸς μοῖρα ἔνεστι πλὴν νόου, and again παντάπασι δὲ οὐδὲν ἀποκρίνεται οὐδὲ διακρίνεται τὸ ἕτερον ἀπὸ τοῦ ἑτέρου πλὴν νόου.. ἀλλ' ὁτέων πλεῖστα ἔνι, ταῦτα ἐνδηλότατα ἓν ἕκαστόν ἐστι καὶ ἦν: that is each individual thing is what it is by having in it the greatest number of ὁμοιομερῆ στοιχεῖα, particles like to it in kind. The full and able exposition of Aristotle, phys. I 4, is well worth comparing with Lucr. and Anaxagoras himself. 880 a v. occurring four times in almost the same words. 882 *rob. saxi*: II 449 *duri robora ferri*; Virg. geor. I 162 *grave robur aratri*: Lucr. perhaps got it from Pacuvius 11, where for the ms. *fruges frendo sola sacsic probore*, read *Fruges frendo sola saxsi sic protritas robore.* 883 *aliquid* i.e. eorum *quae*: Plaut. Men. 192 *quam quisquam qui impetrant*; Virg. ecl. II 71 *aliquid..quorum indiget usus*, but there the gen. makes it much less harsh; as II 583 *Nil esse,..quorum natura*: comp. VI 814 *vitai copia desit* i.e. iis *Quos* cet.; Aen. XI 172 *Magna tropaea ferunt quos dat* cet. where Wagner gives several other instances from Virgil: the idiom is found in prose; Valer. Max. II 10 1 *ne de aliqua re, quae in his relatae erant, videretur dubitasse*; Livy XLI 2 2 *nec quicquam eos, quae.. agerentur, fallebat.* 885 (884) *lapidi* is abl.: so 1111 *de parti*, II 520 *mucroni*, VI 66 *rationi*: see n. to 978 *fini.* Comp. Plautus asin. 31 *ubi lapis lapidem terit*, in a different sense. The transposition of these two vss. renders the language and argument quite perspicuous without altering a letter of the mss.: just as blood, etc. should be seen in the corn which we eat; so should blood, etc. be seen in the grass which animals eat; milk, etc. in the waters which sheep drink; ash, smoke, fire in the wood which is burned. 887 the constr. Lach. explains thus, *dulces guttas mittere* tales *quali oves sunt ubere lactis*: *ubere* is briefly said for *sapore uberis*: comp. Prop. I 2 21 *facies aderat nullis obnoxia gemmis, Qualis Apelleis est' color in tabulis.* *lanigerae*: comp. *balantes, squamigeri* and *pennipotentes*, likewise used absolutely. *ub. lac.*: so II 370 and Tibullus *ubera lactis*; Lamb. quotes from Varro *mammam lactis.* [Comp. Eur. Phoen. 1526 ματρὸς ἐμᾶς διδύμοισι γάλακτος παρὰ μαστοῖς.] 895 896 very like 814 815, expressing the epicurean doctrine of *primordia* against Anaxagoras as there against Empedocles. 895 *multimodis*: see n. to 683 *omnimodis.*

897—920: but you say trees often take fire by rubbing against each other: true, but for all that fire is not in them; else it would burst forth at any moment: the fact is fire and firs have many first-beginnings in common, just as the words have letters in common; but the two things, as the two words, are yet quite distinct. In this way if you think a thing cannot be, unless its first-beginnings are of a like nature,

then you must give to these human feelings, in order that they may make a man.—This passage in meaning and in language greatly resembles 803—829: the reason is plain: the particles of Anaxagoras seemed to Lucr. liable to the same objections as the four elements of Empedocles, each giving to his elements those secondary qualities which only belong to things in being. 900 *flam. flore*: editors comp. πυρὸς ἄνθος of Homer and Aeschylus, and IV 450 *lucernarum florentia lumina flammis.* 902 *sem. ardoris*, which yet have none whatever of the properties of fire. 904 *facta*, fully made, opposed of course to the *semina*, which might in other circumstances form water or anything else: comp. Tib. (Lygdam.) III 1 12 *littera facta*; Cic. acad. pr. II 2 *factus imperator*; Brutus 30 *facta quodammodo oratio*; ad Att. II 24 3 *qui illuc factus institutusque venisset*; Pliny paneg. 20 *adeo nihil aut certe parum intererat inter imperatorem factum et futurum*; Ov. ars III 233 *neque ad illa licet populo nisi facta venire*; [Mart. II 26 3 *Iam te rem factam, Bithynice, credis habere.*] 907 *paulo ante* i.e. 817 foll. where the language is almost the same: see notes there. 912 *ignes et lignum*: because here fire coming from wood is the question; in 820 *caelum mare terras* cet. because there it is the four elements that is the subject examined. 915—920 here again he closes a long discussion with a short argument appealing to common sense to shew to what absurdities such premisses might lead: see 701 foll. 759 foll. 984 (998) foll. 918 *tibi*: see n. to 797. 920 comp. Aen. XI 90. 919 920 comp. II 976 *Scilicet et risu tremulo concussa cachinnant Et lacrimis spargunt rorantibus ora genasque*: in each case he pushes the argument to what he deems the last absurdity, that of endowing first-beginnings with human feelings. And, if a tree cannot produce fire without having fires latent, why should a man be able to laugh or cry, if he have not in him laughing and crying elements? Mr Poste of Oriel in a valuable communication to me points out that I did Lucretius injustice in making him put this argument into Anaxagoras' mouth: 'Lucr.' he says 'does not charge Anaxag. with being bound to hold that all ἀνομοιομερῆ were composed of similar parts: such a charge would not be true: he only says that in the ἀνομοιομερῆ Anaxag. concedes the principle that a thing *may* be composed of ingredients unlike itself, and asks why then shall we not believe that the miscalled ὁμοιομερῆ are actually so composed'. Aristotle, as Mr Poste observes, in the part. anim. II 1, p. 647 a, 2—14, makes the sensories ὁμοιομερῆ, and prob. therefore Anaxag. did the same. However so far as I know there is no evidence as to what Anaxag. did hold on this point: but comp. II 973—990.

921—950: listen now: inspired by the muses I enter on an untrodden path to cull a wreath yet worn by none: I am going to burst the bonds of religion; and clear up a dark subject by lucid verses, verses

o'erlaid with the honey of the muses, in order to beguile my readers to their own profit, even as the rim of the cup is smeared with honey to entice children to drink the bitter but wholesome draught of wormwood. —The poet has hitherto explained the nature of his two great principles of void and atoms, and shewn the insufficiency of those of rival teachers: he now, before proceeding to apply these two principles to explaining the system of the universe and of this world of ours, calls attention to his theme in this lofty exordium. 922 *an. fal.*: see n. to 136. 923 comp. Aen. IX 197 *magno laudum percussus amore.* 924 *incussit am.*: so 19 *incutiens blandum per pectora amorem*; Virg. geor. II 476 *ingenti percussus amore* i.e. musarum. 926—950 repeated IV 1—25, except the last 4 words. 926 foll. there are many well-known imitations of these vss.: by Virg. geor. III 10 foll. joined with 291 foll.; Hor. sat. II 4 84; epist. I 19 21 foll.; Manil. I 4—6; and others. 926 comp. 'Antipater Thess. ep. 24 l. 5, II p. 115, τὰν ἄτριπτον καὶ ἀνέμβατον ἀτραπὸν ἄλλοις' J. E. M. 927 *integros* hitherto untasted by any one, with perhaps the notion of unsullied: Hor. od. I 26 6 *o quae fontibus integris Gaudes*; Nemesianus cyneg. 11, in his imitation, *intacto premimus vestigia musco.* [On Horace here and Lucr. see Herz in Hermes VIII p. 262 n. 3. Luc. Mueller compares Lucil. XXX 2 *Quantum haurire animus Musarum ec fontibu' gestit.*] 930 *vel. tem.*; IV 587 *Pinea semiferi capitis velamina*; Ovid ex Ponto III 2 75 *dum velat tempora vitta*; Aen. V 72 *velat materna tempora myrto.* 932 *Relig. nod.*: see n. to 109. 933 *obsc. lucida*: see n. to 639 *Clarus ob obscuram*: Cic. de nat. deor. I 58 Cotta says to the epicurean Velleius *iudico tamen de re obscura atque difficillima a te dictum esse dilucide.* 934 *contingens*, 938 *contingunt* and 947 *contingere*: Lamb. here and elsewhere rightly makes this word a compound of *tango*: VI 1188 *croci contacta colore*: so Ov. met. II 123 and XIV 607 *contigit*; Sen. Hipp. 714 *contactus. continctus* is not found in Lucr.; Virg. geor. III 403 and 448 *contingunt* is probably the same form. 935 *non ab nulla rat.* means of course with very great reason: it seems best to understand *ab* in a sense derived from that illustrated in n. to 693 *contra sensus ab sensibus*: *stare, pugnare ab=stare, pugnare cum*; comp. the common use of *stare ab Romanis* in Livy who says *quae pars cum Romanis stabat* with the same meaning: *non ab nulla ratione* then will mean *non cum nulla rat.* or *non contra rationem*; comp. Mart. III 30 5 *Cum ratione licet dicas te vivere summa, Quod vivis, nulla cum ratione facis*: so that it = Cicero's *non sine ratione esse*; and may be more precisely illustrated by Cic. de off. I 7 *omnis enim quae a ratione suscipitur de aliqua re institutio*; D. Brutus ap. Cic. ad fam. XI 10 1 *tu enim a certo sensu et vero iudicas de nobis*; Balbus ap. Cic. ad Att. IX 7 B 3 *illud certe scio me ab singulari amore ac benevolentia...tibi scribere*: comp. too Livy X 31 6 *ab ultima iam dimicantibus spe.* Nay possibly it may resemble

Cic. ad Att. x 11 3 *non sunt ab obsequio nostro*, i.e. the technical *a Platone, ab Isocrate esse*; *Zeno et qui ab eo sunt*, etc. See too Draeger hist. synt. I p. 579 § 4. 936 *taetra* denotes esp. what is nauseous to taste or smell. 936 foll. are quoted by Quintilian and Jerome: comp. Seneca suas. 7 near beg. *decipere vos cogar, veluti salutarem pueris daturus potionem absinthiati poculi*; and Auson. epist. 17. 940 *tenus* with a gen. seems not to be found in Cicero's prose: his correspondent Caelius employs it, as well as Livy, Quintilian, etc. 941 *dec. non cap.* in form resembles Enn. ann. 360 *Nec cum capta capi* cet. imitated in Aen. VII 295 *Num capti potuere capi* cet. but the sense differs: it is rightly explained perhaps by Turneb. adv. VI 14 'tractum esse videtur a feris avibus piscibus; nam fovea pedica nassa area esca decipiuntur atque capiuntur, in damnumque et incommodum incidunt: non tamen pueri cet.': [comp. Antony and Cleop. v 2 40 *who are in this Relieved, but not betrayed*;] Tasso Ger. lib. I 3 *E dall' inganno suo vita riceve*: Fairfax reproduces better the point of Lucr.: *They drinke deceivd and so deceivd they live.* Aen. IV 330 *Non equidem omnino capta ac deserta viderer*, *capta* is much stronger than *decepta* would be; and Livy XXV 19 11 *quibus artibus ad id locorum nostri et duces et exercitus capti forent*; Cic. ad Att. IV 6 2 *oppressus et captus.* 944 *Tristior*=amarior: IV 125 *tristia centaurea*; 634 *quod triste et amarumst*; VI 780 *saporeque tristia quae sint*; Virg. geor. III 448 *tristi amurca*; Livy XLII 40 3 *sicut medici, cum salutis causa tristiora remedia adhibent.* *quibus*=iis, a quibus, by attraction: Lucr. does not use the dative of the agent after the passive. [On this dative see Draeger hist. synt. I p. 395—398: Cicero and others have more instances than I had supposed, but generally in the case of pronouns *mihi, nobis, quibus* etc. Perhaps Lucr. was led to put the dative here by the fact that the sentence contains an *iis, quibus.* Comp. Catullus' *Pro quo mihi sunt magna bella pugnata.*]
945 *suav. Pierio . . musaeo dulci*: see n. to 258. 949 *dum perspicis* is the idiomatic mood and tense: Ter. eun. 206 *expectabo, dum venit*: from whom I have noted several other instances as well as from Cicero, Seneca and others, as Virg. ecl. IX 23 *dum redeo . . pasce capellas*; Pliny epist. I 15 5 *ut mihi omnia libera servarem, dum Mauricus venit*; [Caelius ap. Cic. epist. VIII 16 3 *dum . . scitur, expecta.*] 950 *compta*: III 258 *quo pacto inter sese mixta quibusque Compta modis vigeant*; IV 27 *quibus e rebus cum corpore compta vigeret*; and III 845 *qui comptu coniugioque Corporis atque animae consistimus uniter apti*: N. P. Howard compares glossarium vetus '*συγκείμενος comptus, compositus*', and Arnob. IV 37 *ab eius comptu et permixtione sunt absoluti*; and Lach. to II 1061 maintains with reason that the *coemptio* in marriage is the same as Lucretius' *comptu coniugioque*, the sense of buying being a confusion of later times; for with *compsi comptum, coemi coemptum*, comp. *dempsi demptum* and *diremi diremptum, sumpsi* and *suremi* ap.

Festum, *prompsi promptum* and *redemi redemptum*: with *compta fig.* comp. II 814 *quali magis apta figura.*

951—957: I have proved the existence of indestructible atoms and of void or space: are these atoms infinite in number? is this space infinite in extent? 955 *Seu*: for this use of a single *seu*=vel, comp. VI 1003 *sive aestum*, and I 1019; and see C. F. W. Mueller ueb. *sive* p. 21. 957 *profundum* in Lucr. means unfathomably deep, and hence is almost synon. with *immensus*: comp. his use of *solidus*, *plenus*, *celer*, *magnus* and the like in n. to IV 63.

958—987: well then the universe is bounded on no side; for then it must have an end or outside; in which case there must be something beyond it, which may be seen to bound it; but there can be nothing outside the universe, which is therefore boundless on all sides. Again say for the moment space is finite: go now to its verge and fling a javelin: will it go in the direction you throw it, or will it be stopped by something? if there is something beyond to stop it, that something is in the universe; if it goes on, it has not started from the end of space: therefore you will be always in the universe, wherever you fling it. Lastly whatever you see, is bounded by and into something different; earth by sea, sea by earth and the like; but what is there outside to bound the universe?—Lucr. has had great injustice done him here by the misapprehension of his editors and others who strangely take *omne quod est*, *omne quod est spatium*, *rerum summa* to be all synonymes: a right explanation of 968 *si iam.. constituatur*, and the transposition which I have made of 984 (998)—987 (1001) will I believe make his argument quite clear: he is going to shew that space is infinite and matter infinite: the former he proves 988 (984)—1007, the latter 1008—1051; but first for the sake of completeness he states in our present section that the universe or *omne* or τὸ πᾶν is infinite. There can of course properly speaking be no proof of this as Lucr. has wisely seen: it must from the nature of the case be shewn by a series of identical propositions, call them as you please definitions postulates or axioms: these propositions however are most clearly put by him, when he is rightly interpreted. 958 *quod est* is added to *Omne*, as in 523: so 969 *Omne quod est spatium*: it equals τὸ ὄν, which Sen. epist. 58 7 apologises for having so to translate: 'cogor verbum pro vocabulo ponere; sed ita necesse est ponam *quod est*'. τὸ πᾶν is Epicurus' term: Lucr. calls it also *summa omnis*, *summa summai totius omnis*, *summa summarum* and sometimes *omnia*. *nul. reg. vi.*: take whichever of the roads through the universe you please, at no point in any of them will you reach its bound: comp. II 260 and 293 *Nec regione loci certa.* [*igitur*: regularly used in transitions; see Hand III p. 195, and lexic. Quintil. sub verb.] 959 *extremum* is the ἄκρον of Epicurus. 961 *ut vid.* i.e. ita ut videatur illud, quo longius noster sensus non sequatur; so that any one standing at this point sees

where the thing ends and something else begins: *haec sensus nat.* = simply *hic sensus*: see n. to II 646. 962 *sequatur*: Aen. VIII 592 *oculisque secuntur Pulveream nubem.* 964 the *ergo* follows from 959 *namque* cet. The above is almost a translation of Epicurus in Diog. x 41 τὸ πᾶν ἄπειρον ἐστι· τὸ γὰρ πεπερασμένον ἄκρον ἔχει· τὸ δ' ἄκρον παρ' ἕτερόν τι θεωρεῖται. ὥστε οὐκ ἔχον ἄκρον πέρας οὐκ ἔχει, πέρας δ' οὐκ ἔχον ἄπειρον ἂν εἴη καὶ οὐ πεπερασμένον: comp. too Cic. de div. II 103 *videsne Epicurum .. quemadmodum, quod in natura rerum omne esse dicimus, id infinitum esse concluserit?* quod finitum est *inquit* habet extremum. *quis hoc non dederit?* quod autem habet extremum, id cernitur ex alio extrinsecus. *hoc quoque est concedendum.* at quod omne est, id non cernitur ex alio extrinsecus. *ne hoc quidem negari potest.* nihil igitur cum habeat extremum, infinitum sit necesse est. 966 *quem qu. l. p.*: 289 *ruit qua quicquid fluctibus obstat*: see note: IV 179 *In quem quaeque locum diverso numine tendunt*; Cic. de orat. I 130 *ut, in quo quisque artificio excelleret, is in suo genere Roscius diceretur*; Livy IV 4 10 *in quam cuique feminae convenisset domum*; 48 10 *ut quos quisque posset .. pellicerent*; XXXIX 16 13 *quo quisque loco positus erit, quod imperabitur impigre praestare*; [Caes. b. civ. I 76 4 *edicunt, penes quem quisque sit Caesaris miles, ut producantur*; b. Gall. III 4 2 *ut quaeque pars castrorum nudata defensoribus premi videbatur, eo occurrere.*] 967 I am not clear whether *quisque* or *locus* is subject of *relinquit*, I believe the former is.

968 *si iam* must be noted: when thus used, usually as here with a pres. subj., but not always, it means granting for the moment such or such for the sake of argument, yet that which is affirmed will still follow, or that which is denied will still not follow: the reasoning therefore is, granting for the moment space to be finite, yet none the less the general conclusion will be true that the *omne* is infinite; it therefore introduces another proof of this fact; and has nothing to do with proving space to be infinite: the demonstration of that begins at 988 (984): comp. III 540 *si iam libeat concedere falsum Et dare...Mortalem tamen* cet.; v 195 *Quod si iam rerum ignorem primordia quae sint, Hoc tamen* cet.: also I 396 with imperf. *Nec, si iam posset, sine inani posset*; and II 974 with indic. *Principiis si iam est sensus tribuendus*, and III 766 *quod si iam fit, fateare necessest*; and 843 *si iam nostro sentit* cet.: see also IV 1171 *Sed tamen esto iam*: the force of the expression is well seen in Caes. de bell. civ. II 31 5 *quod si iam, inquit, haec explorata habeamus, quae de exercitus alienatione dicuntur, quae quidem ego aut omnino falsa aut certe minora opinione esse confido, quanto* cet. For this use of *si iam* and a similar one of *ut iam* in Cicero and others and *iam ut* in Livy and Caesar see Madv. de fin. IV 66. 969 *procurrat* is technical: Livy XXXIV 39 3 *non modo ad emittenda cum procursu, quo plurimum concitantur tela, spatium habebat, sed*; XXVIII 14 3 *ab neutra parte procursum telumve*

missum. 970 *Ultimus* is added to give force and point to *extr. oras*: it appears to be proleptic; he runs forward to the outmost edge, so as then to be standing on its farthest point: comp. Cic. de nat. deor. I 54 *si inmensam et interminatam in omnis partis magnitudinem regionum videretis, in quam se iniciens animus...peregrinatur ut nullam tamen oram ultimi videat, in qua possit insistere*; de fin. I 17 *nec ultimum nec extremum*; 29 *extremum et ultimum*; II 6 *id extremum, id ultimum*; [in Verr. v 166 *apud homines in extremis atque ultimis gentibus positos*;] Caes. de bell. civ. I 4 3 *decurritur ad illud extremum atque ultimum senatus consultum.* 971 comp. Aen. II 50 *validis ingentem viribus hastam...Contorsit.* 976 *exempta fine*: 1007 *Finibus exemptis*; so Ovid *exempto, dempto, posito fine.* 977 *probeat*: III 864 *probet*: *praebere* and *debere*, for which we find *praehibeo* and sometimes *dehibeo* in the best mss. of Plautus, are analogous. *probeat officiatque*: 973 *prohibere obstareque*, and above *officere atque obstare*; *pugnet et obstet*; also II 784, 786 and 794 *officiunt obstantque, inpediunt prohibentque, contra pugnet et obstet*: his constant imitator Arnob. II 11 has *officiant nihil nihilque inpediant quominus.* 978 *fini* is 'in the mark' or 'limit' aimed at: Lucr. has many such ablatives, *colli tussi orbi bili sordi pelli*, as well as *navi igni imbri* and even *labi*; *mucroni rationi parti lapidi*: and with 976 *fine*, 978 *fini*, 979 *fine* comp. IV 232 *luce*, 235 *luci*: in Greek words he has these ablatives in *i*, *tripodi Cilici Heliconi*, as noted above: for abl. in *i* in other writers see Neue I p. 213 foll. 979 in either case it has not started from the limit of the *omne*: in the former case body has stopped it, and this body must be in the universe; in the latter space has afforded it room to fly on. Notice *finis* thrice within three lines in three senses: observe too *effugium* in 975 and 984 with different meanings; and see n. to 875. 980 *sequar*: so II 983 *Quippe sequar*: I will follow up, press the argument. *oras extr.* the outer edge of the *omne.* 981 here too the use of *fiat* in one sense seems actually to suggest to him *Fiet uti* in a different sense; so strangely does he love such assonances; and in addition to what has been said here and to 875, obs. in 983 *Effugiumque fugae.* 983 *prolatet* is to enlarge the bounds, and thus ever to give room for further flight. Bentl. in 970 for *Ultimus* proposed *Nuntius* without necessity; but he rightly saw, as Wak. observes, that this illustration was suggested to Lucr. by the Roman mode of declaring war: in the words of Livy I 32 12 *fieri solitum ut fetialis hastam...ad fines eorum ferret...hastam in fines eorum emittebat*: comp. also Servius to Aen. IX 53, who after explaining this custom adds 'Varro in Caleno ita ait duces, cum primum hostilem agrum introitum ierant, ominis causa prius hastam in eum agrum mittebant ut castris locum caperent'. But you cannot go out of the *omne* to fling a spear into a neighbour's bounds. A similar dilemma is said to have been used by Archytas to prove the infinity of body: go to the extremity of heaven and try to put out your hand or

staff: you can or cannot: and so on. In very similar language too Locke essay II 13 21 seeks to prove space infinite: he asks 'whether if god placed a man at the extremity of corporeal beings, he could not stretch his hand beyond his body: if he could, then he would put his arm where there was before space without body...if he could not stretch out his hand, it must be because of some external hindrance ...and then I ask whether that which hinders his hand from moving onwards be substance or accident, something or nothing'.

984 (998)—987 (1001): he concludes his argument on the *omne* with a short statement taken from what comes under the sight of all: comp. what is said above on 701 foll. 759 foll. 915 foll.: comp. also II 471—477, III 367—369, V 506—508, 556—563, 646—649. That these vss. should be placed here admits I think of no question: they utterly destroy the sequence of the reasoning, where they come in mss. For a probable explanation of why they got out of place see vol. I p. 29: ignorance of the different stages of the argument would suggest that *Postremo* must follow *Praeterea* of 988; and therefore the first editor would not unnaturally give to this addition of the poet's the place it has in all mss. All finite things bound and are bounded by something discontinuous and distinct in kind: comp. the stoic Cleomedes de meteor. I 6 at end πᾶν τὸ πεπερασμένον εἰς ἑτερογενὲς περατοῦται καὶ ὅ ἐστιν ἕτερον τοῦ πεπερασμένου. οἷον εὐθὺς ἐν τοῖς ὅλοις ὁ ἀὴρ περατούμενος εἰς ἑτερογενῆ καταλήγει, τόν τε αἰθέρα καὶ τὸ ὕδωρ κ.τ.λ. 984 *ante oculos*: see n. to 62.

988 (984)—1007: but space or void is likewise infinite; else matter during past eternity must have sunk in a mass to the bottom, and nothing could exist: but as space is infinite on all hands, there is no lowest point to which first-beginnings can tend: they have boundless room to move in for ever.—Having shewn the *omne* to be infinite, he now proceeds to decide one of the two questions mooted above 953 foll. and to prove space to be infinite. 988 *summai totius* is another name for the *omne*. 991 *confluxet*: see n. to 233. 992 *sub caeli tegmine* recurs II 663 and V 1016, after Cic. Arat. 47 *lato sub tegmine caeli*. 992 *geri*, 999 *geruntur*: see n. to 328: the metaph. is of course the same; though I find a foreign critic can mistake what I thought plain terms. 996 *At nunc*: see n. to 169. 999 *in ads. motu*: so II 297 *quo nunc in motu*; 309 *cum rerum primordia sint in motu*; but IV 392 *et adsiduo sunt omnia motu*. 1000 *inferna* I have no doubt is what Lucr. wrote: to Lucr. and Epic. their conception of atoms implied, as we shall see in II, their racing through space in parallel right lines in one direction. This inherent motion both Epic. and Lucr. conceived as a motion downwards with reference to our world: comp. in fact what he has said a few lines before; and see the acute remarks in the N. British Review p. 222, 'gravitation in its apparent action seemed to shew a universal tendency in one direction; this then he claimed as an inherent property of his

atoms: a claim no broader than the claim made by Newton...and at first sight much more conceivable: at first sight only, for indeed atoms pouring onward, as imagined by our author, could be no source of power. Motion in mechanics has no meaning except as denoting a change of relative position: all atoms moving, as Lucretius fancied, at one speed and in parallel lines would relatively to one another have been in perfect rest...Lucr. *unconsciously assumed the world as his basis* by which to measure direction and velocity'. When by the artifice spoken of, II 216 foll., atoms were enabled to clash and combine, both Epicurus and Lucr. conceived the rising up of atoms in a direction more or less contrary to the only natural motion as that which enabled things to come into being and remain in being, and rendered possible the existence and maintenance of the *summa rerum*. It is utterly vain for Lach. to attempt to controvert this: comp. the words of Epic. quoted in p. 111, τὰ ὑπερείδοντα καὶ στέλλοντα κατὰ τὰς ἀντικοπάς, of which Lucretius' *inf. supp.* cet. is the paraphrase; comp. too 1035 foll. I am compelled to be thus diffuse owing to the strange way in which Lucretius' words and my own have been misunderstood. Of course from the nature of the case Lucretius' conception of *inferna*, 'from beneath', implied every kind of motion upwards, whether perpendicularly or obliquely upwards, all of which would have more or less of a sustaining power in opposition to the inherent downward tendency. Take once more Epicurus' own words l. l. 61, where he is speaking of his atoms moving freely, when nothing impedes, οὔθ' ἡ ἄνω οὔθ' ἡ εἰς τὸ πλάγιον διὰ τῶν κρούσεων φορὰ οὔθ' ἡ κάτω διὰ τῶν ἰδίων βαρῶν. **1001 and 1036** *Ex infinito* i.e. spatio; as V 367 *Ex infinito quae possint forte coorta*; 408 *Ex infinito sunt corpora plura coorta*; 414 *Ex infinito fuerat quaecumque coorta*: but I 1025 *Ex infinito*=Ex inf. tempore; which in the similar passages V 188 and 423 is expressed, *Ex infinito iam tempore percita plagis*: so indifferent is Lucr. to such ambiguities. *Ex infinito* appears from 1036 *Ex inf. suboriri*, and VI 666 *Ex infinito...suppeditare*, to depend on *suppeditantur*, but perhaps it refers to *cita* as well. *cita* has its full participial force, as also II 85 *cum cita saepe* and IV 546 *regio cita*: so Hor. epod. 9 20 *Puppes sinistrorsum citae*. **1002** *profundi* is here a subst. as often in Lucr.: so *natura, habenas, summam profundi*: but he only thus uses it in the gen. sing. **1004** repeated V 1216. **1005** *restat ire*: V 227 *Cui tantum ...restet transire malorum*; Hor. epist. I 6 27 *Ire tamen restat, Numa quo devenit*; [Val. Flacc. I 457 *tibi...restat deprendere patris Relliquias*.] *meando* goes with *facere*. **1006** *copia* i.e. spatii. Comp. with this and 996, Cic. de nat. deor. I 54 *in hac igitur inmensitate latitudinum longitudinum altitudinum infinita vis innumerabilium volitat atomorum* cet. where the *infinita vis* is very Lucretian. **1006 1007** notice here the poetical redundancy of expression, which with him has also a philosophical import.

1008—1051: and the sum of things and matter too are infinite: the other question proposed above: for space being infinite, if matter were finite, then nothing in being could exist one moment: this world for example and all its parts would dissolve into their atoms; or rather could never have existed; for it is only by an infinite supply of matter that this earth and heaven can be maintained: the mutual clashings of atoms might keep this world, or any other world, supplied for a time; but only for a time: nay without infinite matter even these clashings could not go on. 1008 *rerum summa*: see n. to 235, and 333. *summa* is with Lucr. a very indefinite term: we have seen that *summa omnis*, *summa summai totius omnis*, *summa summarum* and the like are all synonymes of the *omne* or universe: *summa loci* is the infinite void or space: as then *res* is his proper term for things in being, *summa rerum* denotes the whole sum of things in being, the whole number numberless of worlds in being throughout infinite space, even as *haec rerum summa* means this world of ours: and this is its regular and usual meaning, as 502 *Unde omnis rerum nunc constet summa creata*, and II 530 *Ex infinito summam rerum usque tenere.* But then as this *summa rerum* is infinite, and as the first-beginnings, out of which it comes and into which it passes back, are also infinite, and as worlds somewhere in the universe are always rising into being and perishing, and thus the relations between the *res* and the *primordia* are constantly changing; the infinity of *res* and that of *primordia* got mixed together so inextricably, that sometimes, as in our present passage, *summa rerum* means the whole infinite sum of matter, both things in being and atoms out of which they come: sometimes, as I 334, *summa rerum* is as vague as its cognate *natura rerum*; see also n. to 619. Once, VI 606, as the context fixes the meaning, he ventures to use *rerum summa* for *haec rerum summa* or *hic mundus*: while 649 it has again its most extensive sense. 1009 *Ne possit, tenet*: Livy XXIV 19 7 *Marcellus...tenuit ne irrito incepto abiretur*: also III 29 8; IV 30 16; VII 8 5; XXXVII 51 3; Ovid met. VII 146; [Sen. epist. 103 4 *non teneo ne noceant, sed ne fallant*: (*teneo ne* Schultess: *te ne* mss.);] so with *ut*, Livy XXVIII 45 13; III 24 2 *obtinuit ut.* 1012 *Aut* [ita ut] *alterutrum eorum* i.e. aut inane aut corpus, si *alterum* i.e. aut corpus aut inane, non *terminet* illud alterum, *Simplice natura*, i.e. solum, *pateat tamen*, i.e. etiamsi alterum desinat, *inmoderatum.* The text is quite sound here, excepting of course the lacuna; though some recent critics have pulled it strangely to pieces. *Aut etiam*: IV 315 *aut etiam quod* cet.; 935 *aut corio sunt Aut etiam conchis aut callo aut cortice tectae*; V 359 and 701 *Aut etiam quia*; Ov. ex Ponto III 4 11 *Nos, quibus ingenium longi minuere labores, Aut etiam nullum forsitan ante fuit*: comp. IV 356 *Sive etiam.* [For *aut etiam* comp. Cic. epist. I 9 16 *quod de illo acceperant aut etiam suspicabantur*; IV 13 3 *aut etiam sontibus*; XI 6 2 *aut ita haberi senatum, ut..*, *aut etiam, si...*, *me*

non adesse; ad Q. fr. I 1 8 *aut etiam*; I 1 38; I 3 1 *aut etiam ne te videre noluerim*; I 4 1; II 15 (16) 1 *ab aequis vero aut etiam a propensis in hanc partem*: for *sive etiam* see Cic. ad Q. fr. I 1 4 *ac resistas sive etiam..occurras*: for *vel etiam* epist. XIII 1 4 *vel,..vel etiam.*] *nisi...tamen*: Hand and others deny that *nisi* can=si non: but comp. Lucr. VI 591 *Quod nisi prorumpit, tamen* cet.; Plaut. truc. II 7 12 *hoc adsimile est quasi de fluvio qui aquam derivat sibi*: *Nisi derivetur, tamen omnis ea aqua abeat in mare*: in both places *nisi tamen* is used precisely as here: Tac. ann. III 54 *ac nisi provinciarum copiae... subvenerint, nostra nos scilicet nemora nostraeque villae tuebuntur*; Livy XXI 41 15 *nec est alius ab tergo exercitus qui, nisi nos vincimus, hosti obsistat*; Ov. remed. 245 *Quod nisi firmata* (=si non firmata) *properaris mente reverti*; espec. trist. I 8 31 *Quid, nisi convictu causisque valentibus essem, Temporis et longi vinctus amore tibi? Quid, nisi tot lusus et tot mea seria nosses, Tot nossem lusus seriaque ipsa tua? Quid, si duntaxat Romae tibi cognitus essem?*; Mart. X 73 7 *A te missa venit: possem nisi munus amare, Marce, tuum, possem nomen amare meum*; [Sen. rhet. controv. I 1 7 *at nisi impetravero ut boni fratres sint, impetrabo ne mali patres sint*; and just as Lucr., Cic. epist. III 12 3 *nisi iam tunc omnia negotia cum summa tua dignitate diligentissime confecissem,...tamen hac mihi affinitate nuntiata non maiore equidem studio, sed acrius, apertius, significantius dignitatem tuam defendissem.*] *alterum*: for the elision see n. to III 904. **1013** *Simplice* will hardly be found elsewhere, *simplici* being the common form: *duplice, triplice, septemplice* are equally rare: see n. to II 635 *pernice.* *inmoderatum*: Cic. de nat. deor. II 65 translates the ἄπειρον αἰθέρα of Euripides by *inmoderatum aethera.* On the lacuna see notes 1 and transl. **1014** *templa*: see n. to 120. **1015** *divum cor. san.* existing in the intermundia. **1018** *magnum per inane*, which occurs four times between this v. and II 109, is adopted by Virg. ecl. VI 31: II 1108 *magnum* is an epithet of *omne*: the word thus applied acquires a poetical intensity of meaning; as *solidus profundus celer* and the like: see n. to IV 63 *tenuis.* Of this and the preceding sections Epic. Diog. X 41 gives a good summary, καὶ μὴν καὶ τῷ πλήθει τῶν σωμάτων ἄπειρόν ἐστι τὸ πᾶν καὶ τῷ μεγέθει τοῦ κενοῦ· εἴτε γὰρ ἦν τὸ κενὸν ἄπειρον τὰ δὲ σώματα ὡρισμένα, οὐδαμοῦ ἂν ἔμενε τὰ σώματα, ἀλλ' ἐφέρετο κατὰ τὸ ἄπειρον κενὸν διεσπαρμένα, οὐκ ἔχοντα τὰ ὑπερείδοντα καὶ στέλλοντα κατὰ τὰς ἀντικοπάς· εἴτε τὸ κενὸν ἦν ὡρισμένον, οὐκ ἂν εἶχε τὰ ἄπειρα σώματα ὅπου ἂν ἔστη: of this passage and the one cited to 964 Lucretius' argument in 958—1051 is an accurate expansion. The last words would alone prove 984—987 (998—1001) to be an unmeaning interruption of the argument where they come in mss. **1019** *Sive ad pot.*=Sive adeo, or Seu potius; but the pleonasm adds emphasis: comp. III 949 *Atque etiam potius*; IV 356 *Sive etiam potius*: Lucilius has *sive adeo*, Cicero once *sive adeo*, once *sive etiam*; [Caesar b. c.

I 27 2 *sive etiam quod*; II 27 2 *sive etiam auribus Vari serviunt*;] auctor ad Heren. IV 55 *atque adeo multo potius*: see C. F. W. Mueller ueb. *sive* p. 24.

1021—1027 are repeated with some changes V 419—429 and 187—194. It is mere blind chance, not providence, that has arranged out of the atoms this world and other worlds; therefore these atoms never could have thus combined, unless there was an infinite supply. 1021 for these three abls. see n. to 183. 1022 *suo* monosyl. here and V 420: so III 1025 *sis oculis* after Ennius; who, ann. 278, has *suos* a monos.; as is the abl. *mieis* in corp. inscr. I 38: the old titulus Mummianus ib. 542 has in one v. *Visum animo suo perfecit tua pace rogans te*; though *tua pace* may be for *tuăm pacĕm*; but such a syniz. is rare in hexameters, frequent in dramatic poetry: even Sen. Agam. 250 has *suapte* dissyl. and Troad. 191 *mānibus meis debitos.* 1024 *mutata* refers of course only to change of place, as 911 *eadem paulo inter se mutata*; 913 *Inter se paulo mutatis sunt elementis*; 681 *mutarique ordine quaedam*: comp. Plaut. Amph. 274 *Neque se luna quoquam mutat*; Ov. trist. V 2 73 *Hinc ego dum muter*; [Livy V 46 11 *nec iniussu populi mutari finibus posset nec nisi dictator dictus* cet. Nonius p. 351 4 *mutare*, transferre: Lucilius lib. XXVI .. *mutes aliquo tecum*...] 1025 *Ex inf.* i.e. tempore: comp. V 188 and 423 and n. to 1001; and also Aen. IX 63 *collecta fatigat edendi Ex longo rabies.* *percita* a favourite word in this sense. 1026 *Omne genus*: Lucr. is very fond of this idiom, common in the best writers: *quod genus* also occurs often; and VI 917 *Hoc genus in rebus*: an adj. *omnigenus* is unknown to him; see n. to 683. *motus* and *coetus* are of course acc. plur. 1027 *disposituras*: so V 192; see n. to 653: it appears to be peculiar to Lucr. 1028 partly recurs V 194. 1029 *magnos annos*: V 644 *Quae volvunt magnos in magnis mensibus annos.* There is no doubt an allusion, perhaps sarcastic, to the stoical theories of the *magnus annus*, or cycle: in each of these great years the world went through precisely the same changes from its first formation to its ecpyrosis. Stob. eclog. I 264 tells us that Heraclitus reckoned this year at 18,000, Diogenes the stoic at 365 times 18,000 solar years. The poet then means to say, this world, though its term of existence is nothing compared with the eternity of the universe, yet in its present form outlives many of your great years. 1031 [*avid. mare*: Hor. od. I 28 18.] *fluminis undis* is the stream of water belonging to each *amnis*: see Forc. and Aen. II 305 *rapidus montano flumine torrens*, which he cites: comp. IV 1036 *Fluminis ingentis fluctus*; [Catul. 64 282 *quos propter fluminis undas Aura parit flores.*] 1033 *summissa*, if from Lucr., has I now think the sense common in Caesar and Livy: *summittere subsidia, auxilia, praesidia* and the like; and indicates a supply sent up when needed: *amissa reparare in tempore quaeque*: comp. too Hor. od. IV 4 63 *Monstrumve*

submisere Colchi Maius; sat. II 4 43 *Vinea submittit capreas non semper edules.* 1034 *vivant=durent* by a poetical licence: see n. to v 538: a stoic or peripatetic could here use it literally; but to the *philosopher* Lucr. these things are rather an example, as he says v 125, of what is *vitali motu sensuque remotum.* 1036 see n. to 1000. 1037 *quaeque* is accus. agreeing with *amissa.* 1038 foll. comp. II 1122 foll. 1039 *am. cor.*: so 810 *amisso iam corpore*; IV 535 *Nec te fallit item quid corporis auferat*: this use of *corpus* in the sense of 'losing flesh', and *facere* 'gaining flesh' is found in Cicero: see lexicons: I have noted from Ovid four instances, of which am. I 6 5 *Longus amor tales corpus tenuavit in usùs Aptaque subducto corpore membra dedit*, is curious: [see too Mart. lib. spect. 7 6 *Inque omni nusquam corpore corpus erat.*] 1041 *aversa viai*, a grecism to which I know no exact parallel: Horace's *sceleris purus, operum solutis* are somewhat like: and Wak. aptly compares too his *abstineto irarum calidaeque rixae* and *desine querellarum*, which stand almost or quite alone. [But Aen. x 441 *desistere pugnae*: comp. too Horace's *laborum decipitur, regnavit popularum*, and *neque ille Sepositi ciceris nec longae invidit avenae.*] Enn. ann. 209 *viai* seems to depend not on *flexere* but *quo.* 1042 *sum. omn. quaec.*, the whole of any sum of matter gathered together, such as our *summa* or *mundus* here spoken of. 1044 *Cudere*, an expressive metaphor with *plaga* or *ictus*, to give the force of Epicurus' ἀντικοπή, the counter-stroke which makes the atom change its course and enables it to combine: these vss. illustrate the *inferna supp.* of 1000: the *plagae* or collisions enable atoms to change their directions, so that enough may come up in all directions from beneath to keep any *summa* in being; but yet these *plagae* could not suffice without an infinite store of matter to supply them in number sufficient. 1045 *queatur*: III 1010 *potestur*: these or other forms are common enough in the old writers; as *quitur quitast nequitur nequitum poteratur possitur*; but can only be used when followed by an infin. pass.; as in the case of *coeptus, desitus sum.* 1049 comp. 1036. 1050 *Et tamen*: IV 811 *Et tamen in rebus*; v 768 *Et tamen ipsa suo* cet.; 1177 *Et tamen omnino quod* cet.; 1096 *Et ramosa tamen cum* cet.; 1125 *Et tamen e summo* cet.; VI 603 *Et tamen interdum*, etc.: the force of the particles is 'and putting this or other considerations out of the way, even then', or 'and yet after all', or the like: see n. to v 1177.

1052—1082: do not believe with some that all things tend to a centre, and therefore the world keeps together without external force, and things and animals beneath the earth cannot tumble into the sky any more than we can fly up to it: that our day is their night, their day our night: this is sheer folly: there is no centre in infinity, and, if there were, things would not be attracted any more than repelled by it: void everywhere alike yields to all body alike.—It is the stoics doubtless

whom Lucr. here mainly attacks, though the peripatetics and some others held a similar doctrine: they taught that there was but one finite world surrounded by an infinite void; and that the world was upheld in the way which Lucr. so clearly explains here, by things pressing to the centre: the earth resting *ἰσοκρατῶς* in the words of Zeno in Stob. ecl. I 19 4, at about the centre of the *κόσμος*, in the same way that the whole finite *κόσμος* remains fast in the infinite void. Had Epicurus, while retaining his conceptions of infinite space and matter and innumerable worlds and systems, seen fit to adopt this stoical doctrine of things tending to a centre, and so to make his atoms rush from all sides of space alike towards a centre, he might have anticipated the doctrine of universal gravity: see what is said at II 251 foll. But Lucr. is right in rejecting the absurd reasons which the stoics gave for things pressing to the centre of one finite world in the midst of infinite void, and he well exposes here, 1083—1113, and II 184—215, their inconsistency in making some things seek, others fly from the centre. 1052 *fuge* with an infin. is found in Virgil Horace Ovid and Tibullus: Lucr. has an infin. after *fugito* too more than once: see n. to 658. 1053 *quod dicunt*= id quod dicunt, or ut dicunt: so *quod dico*, 1080 *sua quod natura petit*, II 369 *quod natura reposcit*, and the like: Lach. seems to me only to involve the constr. 1055 *ictibus ext.* of atoms: see 1042 and 1050. 1056 the stoic in Cic. de nat. deor. II 115 says *omnes partes eius undique medium locum capessentes nituntur aequaliter* cet. and Zeno himself in Stob. ecl. l. l. *πάντα τὰ μέρη τοῦ κόσμου ἐπὶ τὸ μέσον τοῦ κόσμου τὴν φορὰν ἔχειν, μάλιστα δὲ τὰ βάρος ἔχοντα.* 1057 is parenthetical: Lach. rightly compares the form of expr. in IV 366 *Aera si credis privatum lumine posse Indugredi*: comp. also II 603 *neque posse in terra sistere terram*; and Pliny II 162 *sic terrae, arcentibus cunctis, nisi in se locus non est.* 1058 1059 Lach. and some older editors join these with 1057: this may be right, but I prefer to connect them with 1056: *Et* [fuge credere] *quae pond. sunt* cet. *sunt*: comp. II 226 *feruntur*; V 630 *abest, propinquat*: in the first two cases we might easily read *sint* and *ferantur*; but I make no change, because the best writers often mix such indicative clauses with the orat. obl.: Caes. bell. Gall. v 11 4 *Labieno scribit ut quam plurimas posset iis legionibus, quae sunt apud eum, naves instituat*; and Sall. Iug. 54 1 *hortatur ad cetera, quae levia sunt, parem animum gerant*, much resemble our passage: [Caes. b. civ. I 87 1 *iis qui amiserant restituatur*, where see Kramer's note.] 1059 *retro posta*: if two men are feet to feet, the one is supposed to be reversed or turned upside down, just as your shadow in the water looks to be: Cic. acad. pr. II 123 *qui adversis vestigiis stent contra nostra vestigia, quos ἀντίποδας vocatis.* 1060 unquestionably is joined with what precedes: see notes 1: Lach. here labours in vain: Lucian Demon. 22 gives just the same illustration, *φυσικόν τινα περὶ τῶν ἀντιπόδων διαλεγόμενον ἀναστήσας καὶ ἐπὶ φρέαρ ἀγαγὼν καὶ*

δείξας αὐτῷ τὴν ἐν τῷ ὕδατι σκιὰν ἤρετο· τοιούτους ἄρα τοὺς ἀντίποδας εἶναι λέγεις;

1061 if there is here any anacol. at all, it is very slight and natural: *fuge credere*, on which what precedes depends, is so distant, that he prefers to go on with another verb *Contendunt*. *suppa*: Festus quotes Lucilius for this word; and Accius 575 has *suppa* (imper.): it=supinus. 1062 foll. comp. Pliny II 161 *illo*, i.e. vulgo, *quaerente cur non decidant contra siti, tamquam non ratio praesto sit ut nos non decidere mirentur illi*. 1065 *Illi* the people there, easily inferred from what precedes: yet it is possible that *Illi*, as Lamb. suggests, is the adv.: a well-known form: but the pronoun contrasts better with *nos*: Virg. geor. I 250 *Nosque ubi primus equis oriens adflavit anhelis, Illic* (MPR, Probus: *Illis* Seneca) *sera rubens accendit lumina vesper*, there is a similar doubt. 1066 the subject changes, *et* [illos contendunt] *dividere*. *tempora caeli* are of course the seasons of the year; as VI 362 *cum caeli tempora constant*; and as *anni tempora* and *annorum tempora* are often used by him: with them it is midsummer, when with us it is midwinter, and therefore their nights are always equal to our days. 1067 *diebus* i.e. *nostris*, is a harsh ellipse. *agitare*=agere, a sense common in prose too: Cic. Verr. II 154 *dies festi agitantur*. 1068 *stolidis*, the stoics: see n. to 641. 1073 the mutilated sentence makes it impossible to tell whether *longe* goes with *alia* or a lost infin. at end of the verse. 1075 *per non medium*: so II 930 *ex non sensibus*; 932 *a non sensu*: comp. Horace's *non sutor*, Sallust's *omnia non serva*, Cicero's *non corpus*, Quintilian's *non exordio, non voce, non orator*: [comp. Ov. met. IV 187 *aliquis de dis non tristibus*.] 1076 *Aeq. pond.* more fully expressed II 239 *Aeque ponderibus non aequis*; comp. Epic. in Diog. Laert. X 43 παρεχομένου τοῦ κενοῦ τὴν ἴξιν ὁμοίαν καὶ τῇ κουφοτάτῃ καὶ τῇ βαρυτάτῃ τὸν αἰῶνα, where ἴξιν should surely be εἶξιν: comp. Sextus adv. math. X 223 διὰ τὴν εἶξιν φέρεται δι' αὐτοῦ, i.e. ἡ ἄτομος. 1077 *quisquam locus*: II 857 *Nec... saporem denique quemquam*; III 234 *Nec calor est quisquam*; 875 *quemquam sibi sensum in morte futurum*; IV 689 *haud quisquam...eorum*; Valer. Flaccus VIII 272 *irae quisquam modus*; Caelius ap. Cic. ad fam. VIII 17 2 *nec homo nec ordo quisquam*; Plaut. Men. 447 *Numquam quicquam facinus feci*; most. 607 *neque ego taetriorem beluam...quemquam*; Suet. Caes. 59 *quoquam incepto*; Manil. II 841 *cardine quoquam*; Tac. dial. 29 *nec cuiquam serio ministerio*; [Sen. de brev. vitae 9 1 init. *potestne quisquam sensus hominum eorum dici qui prudentiam iactant* cet.: *dico* mss. *dici* Frid. Schultess in commentat. in hon. F. Buech. Herm. Useneri a soc. phil. Bonn.; Prop. V 7 13 *nec cuiquam melior sperande puellae*.] With appellatives it is common enough, *quisquam parens, civis, homo, discipulus, cocus, amator, vir, puer, heros, iuvenis, mulier, virgo, anus, amica*. But Cicero too can not only say *cuiquam ordini* and *cuiquam generi hominum*; but also ad Att. V 10 4 *ne rumor*

quidem quisquam; ad fam. III 10 6 *cuiquam legationi.* 1079 1080 almost repeated II 236 237. 1079 *subsistere*: Plaut. epid. I 1 77 *nisi suffulcis firmiter, Non potes subsistere.*

1083—1113: again they teach that while earth and water tend to the centre, air and fire fly from it, and that the earth sends up food to the tree-tops: they thus contradict themselves: the truth is that the whole of this doctrine is alike false; for, space being infinite, if matter were finite, the world and all that is in it would in a moment dissolve into their first-beginnings: if on any one side matter fails, the door of destruction is opened to all alike.—Zeno l. l. thus teaches, οὐ πάντως δὲ σῶμα βάρος ἔχειν, ἀλλ' ἀβαρῆ εἶναι ἀέρα καὶ πῦρ· γίγνεσθαι δὲ καὶ ταῦτά πως ἐπὶ τὸ τῆς ὅλης σφαίρας τοῦ κόσμου μέσον, τὴν δὲ σύστασιν πρὸς τὴν περιφέρειαν αὐτοῦ ποιεῖσθαι κ.τ.λ.: this exactly agrees with what Lucr. affirms of them; who in II 184—215 clearly and well refutes the theory. 1085 in this v. and the lost one the two conditions of water seem to have been expressed, when it tumbles in rain from the sky, and when it is kept together as it were by the earth's substance in the form of the sea and rivers. 1089 *tremere*, *tremulus*, *tremor*, are all used by him to express the bickering of the stars or of fires. 1090 *cae. caer.* recurs VI 96: he has *caerula mundi*, the same thing; and *caerula* alone: Ennius before him *cava caerula* and *caerula caeli templa.* *pasci*: 231 *unde aether sidera pascit*; V 524 *Quo cuiusque cibus vocat...Flammea per caelum pascentis corpora passim.* 1091 *se ibi*: the elision of a long monosyl. before a short vowel is confirmed within narrow limits: see Haupt obs. crit. p. 17 who cites from Lucr. I 136, 922, V 97 *Nec me animi*; III 6 *Quod te imitari*; IV 1188 *tu animo*; I 234 *Quod si in eo*: but these are all easy elisions and frequent even in Ovid. Lach. adds III 574 *In se animam*, which is a false reading, as well as I 874 *quae alienigenis*, VI 755 *vi ibus*, two mere conjectures of his own which both violate the laws of elision: see Luc. Mueller de re metr. p. 284. 1094—1101 see notes I: it is clear that in the lost vss. the clause *nisi* cet. had to be completed; then an apodosis to *quoniam* cet. must have come, shewing that these people were not only wrong, but inconsistent: then a new sentence must have followed, declaring that space being infinite, as even the stoics admitted, matter as proved above must be infinite likewise, *Ne* cet. 1102 *volucri* a natural metaphor: IV 205 *volucri levitate*; VI 173 *volucri lumine*: Shakespeare has *the volant speed of flame.* *moen. mundi*: see n. to 73: the ether being outside would go first, then heaven and air, then earth and all in it would follow and be commingled in the ruins of heaven. 1105 *penetr. templa*, the innermost quarters, i.e. farthest removed from us: it means therefore that the whole heaven would tumble in on earth and be mixed in wild ruin: Virgil has *tectis*, and *adytis penetralibus*, and *penetrali in sede*; Seneca *penetrales deos*; Cicero and Catullus have *penetrales focos*: elsewhere in Lucr. *penetralis*

=qui penetrat. **1107** *rerum* here seems to be everything in and on the earth; so that the atoms of these *res* and of heaven are mixed up with those *omnis terrae*. **1108** *Corpora*, i.e. prima, *solventes*: VI 235 *soluens differt primordia vini*: dissolving the union of the atoms; the word more commonly signifies breaking up the thing itself: Lucan II 290 *cum ruat arduus aether, Terra labet, mixto coeuntis pondere mundi.* **1109** Plaut. rud. 1287 *de bonis quod restat reliquiarum*; [Cic. epist. XII 4 1 *reliquiarum nihil fuisset.*] **1111** *parti* recurs III 611, IV 515, V 511, 721, VI 694, 721; inscr. Lat. I 206 25 and 27 *in partei*: 198 51 *parti*: the accus. *partim* is found VI 88, 384 and 661; for these forms in other authors see Neue I p. 205 and 241: the adv. *partim* is really this accus.; see n. to 20. **1112** *ianua leti* recurs V 373; and is adopted by Virgil and Ovid, and after them by Statius Val. Flaccus and Arnobius more than once: III 67 *leti portas cunctarier ante*; Ovid trist. III 2 30 has also *meique Interitus clausas esse vetate fores*, having said a few lines above *totiens nostri pulsata sepulcri Ianua*: which illustrates the expression. In this the poets have idealised the solid stone doors of their tombs: comp. the *Orci traditus thensauro* of Naevius in his epitaph; and what Eucharis in the corp. inscr. 1009 says of her own and the surrounding tombs: *Heus oculo errante quei aspicis leti domus.*

1114—1117: master fully what has been said, and the whole of nature will soon be revealed to you. **1114** see notes 1: *sei pernosces*: *nosco, noscere, pernoscere* is the usage of Lucr. not *novi, nosse*: *sei pernosces* has been strangely objected to, because Lucr. should have said *pernoris*, as if this usage of the simple for the perf. future were not common in the best writers: Hor. od. I 1 31 *Quod si me lyricis vatibus inseres, Sublimi feriam sidera vertice*; Ov. ars I 469 *Si non accipiet scriptum inlectumque remittet, Lecturam spera*; [fasti III 351 *certe credemur, ait, si verba sequetur Exitus.*] Often the two tenses are used together: Virg. geor. I 155—157; Mart. IV 86 6 *Si te pectore, si tenebit ore...Si damnaverit*; Sen. Thyest. 634 *Si steterit animus, si metu corpus rigens Remittet artus*; Cic. ad Att. XII 28 1 *Si igitur tu illum conveneris...et, si quid ita conficies*, cet. Madvig opusc. II 80 says 'futurum simplex quam tenui discrimine ab exacto in tali coniunctione interdum distet etiam apud bonos prosae orationis scriptores, nemo ignorat'; and then he proceeds to shew how strangely in the Lex Rubria, inscr. Lat. I 205, written a few years after the death of Lucr., the two futures are mixed together without any difference of time, and cites Livy XXXV 35 17. [So Plaut. Cas. II 4 28 *Si sors autem decolassit, gladium faciam culcitam Eumque incumbam*; but capt. 496 *Si ea decolabit, redibo huc ad senem ad cenam asperam.* Very like Lucr. is Cic. epist. VI 2 3 *quae vis insit in his paucis verbis...si attendes, quod facis, profecto etiam sine meis litteris intelleges te aliquid habere* cet.; and VII 19 *quamquam*

tu, si attente leges, si saepius, per te omnia consequere ut certe intellegas.] *par. op.*=*parva opera* or *labore*: Hor. epist. I 7 8 has *opella forensis*: no other example of the word is quoted; later writers have *operula.*

BOOK II.

1—61: sweet though it be to see from a place of safety the storm-tost sailor or the battling soldier, far sweeter is it from the heights of philosophy to look down on men lost in error and struggling for power and wealth: what blindness not to see how little is wanted to rid us of pain and bring us every innocent pleasure; often merely fresh air and fine weather, not palaces nor banquets! can purple cure a fever? It is not wealth or birth or power, no nor armies and navies that can free us from fear of religion and death, and all the cares of life: reason alone can deliver us from all such empty terrors. 1 and 5 *Suave*; so *nec mirum* more than once, as well as the indeclinable *pote*, with which other writers too so often omit the verb subst. and which, to judge from the *dei qui potes* (δυνατοί) of Varro, had the force of a neuter: these neuter adjectives are rare exceptions, the usage of Lucr., as of the older writers generally, being not to omit the subst. verb, except in some standing formulæ of speech, among which these instances in Lucr. may be reckoned: see Ritschl opusc. II 608—618; but see too Ribbeck trag. fragm. 2 ed. p. XXI. *mari* is the abl.: obs. *magno* and 2 *magnum*, and 27 28 *auroque aurataque*, and 48 49 *metus metuunt*, and 54—59 *tenebris tenebris tenebris tenebras*. [*mari magno* occurs more than once in Ennius, and *mare magnum* in Lucil. XXX 72.] 1 comp. Archippus Mein. com. Gr. frag. II p. 727 Ὡς ἡδὺ τὴν θάλατταν ἀπὸ τῆς γῆς ὁρᾶν, Ὦ μῆτέρ, ἐστι μὴ πλέοντα μηδαμῶς; and Cic. ad Att. II 7 2 *Nunc vero cum cogar exire de navi, non abiectis sed ereptis gubernaculis, cupio istorum naufragia ex terra intueri; cupio, ut ait tuus amicus Sophocles*, κἂν ὑπὸ στέγῃ Πυκνῆς ἀκούειν ψεκάδος εὐδούσῃ φρενί: comp. the whole frag. from the tympanistae, esp. τοῦ γῆς ἐπιψαύσαντα, which further illustrates Lucr.: it appears therefore to be a common proverb, the hardness of which he tries to soften by the explanation of 3: Hor. epist. I 11 10 *Neptunum procul e terra spectare furentem.* 2 comp. n. to I 253. 3 Prop. I 10 3 *O noctem meminisse mihi iucunda voluptas*; Aetna 251 *divina est animi ac iucunda voluptas.* 4 *quibus malis careas*=ea mala quibus careas: *careas*=caremus: see n. to 41 foll. and to I 327, and comp. 36 *Iacteris.* 7 foll. often imitated, as ciris 14 *Si me iam summa sapientia pangeret arce...Unde hominum errores longe lateque*

per orbem Despicere atque humiles possem contemnere curas; Ovid met. xv 147 *iuvat ire per alta Astra...Palantesque animos passim ac rationis egentes Despectare procul* cet.; Stat. silv. II 2 131 *celsa tu mentis ab arce Despicis errantes.* 8 *doctrina sap.* is governed by *munita*; *munita* has at once its literal meaning, as in *arx munita*, and the common metaphorical one, as in Cic. de div. I 45 *sapientia munitum pectus*: the somewhat involved sentence gives an awkwardness to the epithets; since even in prose *serena templa, edita, doctrina sapientum munita* would be natural enough. Lucr. may well have been thinking of Aristoph. clouds 1024 Ὦ καλλίπυργον σοφίαν κλεινοτάτην ἐπασκῶν, for it is a play he would have been likely to enjoy, and I find other points of resemblance: comp. II 1100 foll. and VI 387—422 with clouds 395—402; and VI 124—131 with clouds 404—407; and IV 131—142 with clouds 346 foll. 9—13 L. Mueller compares Lucil. l. inc. 15—21 of his ed. 9 *Despicere* here, as in ciris and Statius, to look down with scorn upon: see notes 1 to IV 418 *Dispicere.* 10 *viam quaerere*, unable to find it, because they reject Epicurus who, VI 26 foll., pointed out the true summum bonum, *atque viam monstravit, tramite parvo Qua possemus ad id recto contendere cursu.* 12 13 *Noctes...opes* repeated III 62. 13 *Ad s. emerg. opes*: V 698 *emergere ad ortus*; Paterc. II 65 *in quod iam emersissent fastigium.* *rer. potiri*, and 50 and III 1027 *rerum potentes* appear to be most general expressions for supreme power of any sort: see Forc. s. *potiri*, whose first example is *Cleanthes solem dominari et rerum potiri putat*; and comp. Cic. in Cat. II 19 *dominationem tamen expectant, rerum potiri volunt.*

16 *hoc aevi quodc.*=omne hoc aevum: [Ov. her. 3 142 *hoc animae*;] Aen. I 73 *quodcumque hoc regni*; Stat. silv. V 3 213 *decus hoc quodcumque lyrae*: so Catull. 1 8 *quidquid hoc libelli.* *nonne videre*: this infin. of indignation is quoted by Donatus to Ter. Phor. II 1 2 *Nec meum imperium ac, mitto imperium: non simultatem meam Revereri saltem*: see Lach. who abundantly illustrates it from Cicero and others: add Livy IX 11 12 *haec ludibria religionum non pudere in lucem proferre et vix pueris dignas ambages senes ac consulares fallendae fidei exquirere!* the idiom is very common, though this is said to be the only ex. in Livy. 17 *latrare*: Enn. ann. 570 *animus cum pectore latrat*, and Paulus Festi *latrare Ennius pro poscere posuit*; Hor. sat. II 2 17 *cum sale panis Latrantem stomachum bene leniet.* *utqui*: see n. to I 755. 18 *mente fruatur Iuc. sensu*: comp. Cic. de fin. III 37 *quis est...qui nulla animo adficiatur voluptate*; and see n. to I 183: *naturam*=the whole nature of man, of which *corp. nat.* of 20 is one part; and the *natura* of 23 again takes up the *nat.* of 17: to illustrate the sense and the asyndeton of 17—19 comp. Sen. epist. 66 45 *apud Epicurum duo bona sunt ex quibus summum illud beatumque componitur, ut corpus sine dolore sit, animus sine perturbatione.* 17—19 thus Epicurus

himself after much more to the same purpose says to Menoeceus, Diog. x 131, that the pleasure which is his end is τὸ μήτ' ἀλγεῖν κατὰ σῶμα μήτε ταράττεσθαι κατὰ ψυχήν. 20 *ad nat....opus*: vi 365 *opus fabricanda ad fulmina*: a constr. common in Cicero and others. 21 *quae d. cumque d.* seems epexegetical of *pauca*: 'but few things are needed, such and such only as free it from pain': with this use of *quaecumque* comp. vi 85 *qua de causa cumque ferantur*; 738 *Averna tibi quae sint loca cumque lacusque Expediam*; Prop. i 10 19 *Cynthia me docuit semper quaecumque petenda Quaeque cavenda forent.* So Philodemus vol. Hercul. ix col. 12 φιλοσόφῳ δ' ἐστὶ πλούτου μικρόν· ὃ παρεδώκαμεν ἀκολούθως τοῖς καθηγεμόσιν ἐν τοῖς περὶ πλούτου λόγοις. 22 foll. are made clear by right punctuation: *uti* is concessive, as Lamb. saw, though otherwise mistaking the meaning of the passage: the subjects to *possint* are the golden statues, the house, the gilded ceilings, etc. of 24 foll.: granted that these refinements can supply at times many exquisite delights, yet nature in their absence can be satisfied often with the simplest enjoyments. *Delicias* has thus its proper force, exactly as in v 1450 *delicias quoque vitae funditus omnis, Carmina picturas, et daedala signa polire.* The poet could well enjoy these refinements, but could also do without them. *interdum*: its position is emphatic and in the manner of Lucr.: v 602 *Nonne vides etiam quam late parvus aquai Prata riget fons interdum*; 1125 *Et tamen e summo, quasi fulmen, deicit ictos Invidia interdum* cet. 22 *substernere* appears to have much the same force as the simple *sternere*: the *sub* perhaps has the meaning it sometimes has in *subministrare* and *submittere*, of a successive or continued supply.

23 *neque* here means simply *non*, a sense which *neque* and *nec* so often had in archaic Latin, and which is not uncommon in classical: so vi 1214 *neque se possent cognoscere ut ipsi*; iii 730 *At neque cur faciant ipsae quareve laborent Dicere suppeditat*: so iv 1217 *neque utrum*: see n. there: and v 839 *nec utrum.* The best account I know of this usage is Ribbeck's, Lat. part. p. 24—26: we find in the twelve tables *nec escit* three times, and *quod nec manifestum erit*: comp. too *res nec mancipi*: it is common enough in Plautus, as trin. 282 where the palimpsest has *neque ullum.* [Zeitschr. f. Oest. Gymn. xxvii p. 829 '*nec*...ist einfach die alte Negation=*ne*, *non*: Plaut. Bacch. i 2 11; iv 4 83; Asin. i 3 3; ii 4 65; Pseud. iv 6 23; Poen. iii 1 13; Most. i 3 83 u. da Lorenz; Curc. i 1 21; Bacch. iii 2 64: Curt. x 6 20'.] Comp. Lucil. i 12 (Mueller) *nec si Carneaden ipsum Orcu' remittat*, [and perhaps vi 33 *Quem neque Lucanis oriundi montibu' tauri Ducere protelo validis cervicibu' possent*;] Catull. 64 83 *Funera Cecropiae nec funera*; 30 4 *Nec facta impia—placent*, a passage often misunderstood; ciris 239 *quod nec sinit Adrastea*; 269 *nec ullo vulnere.* Ribbeck says there are undoubted examples in Livy, Ovid, Quintilian, Tacitus, Suetonius, Juvenal, Florus, Justin: add to his instances from Ovid, trist. iv 1 65;

ex Ponto I 1 19; and Mart. IV 86 5: Virg. ecl. IX 6 *quod nec vortat bene.* [Caes. b. civ. I 58 3 has *neque dum*=nondum.] We have in Lucr. *neque opinantem*: so *necopinus neglego negotium*; and *nescio nequeo*; and *nĕvis nĕvolt nevelles neparcunt*, all in Plautus: Cic. orator 154 *nequire pro non quire...nolle pro non velle.. dicimus*; 157 *non scire quidem barbarum iam videtur, nescire dulcius.* 24 foll. after Odys. η 100 Χρύσειοι δ' ἄρα κοῦροι ἐυδμήτων ἐπὶ βωμῶν Ἕστασαν αἰθομένας δαΐδας μετὰ χερσὶν ἔχοντες, Φαίνοντες νύκτας κατὰ δώματα δαιτυμόνεσσιν: it is possible that these vss. of Homer may have suggested the fashion to wealthy Romans. 27 *fulgĕt*: V 1049 *scirēt animoque* is the only other instance of this licence in Lucr. which is much more frequent in Virgil: there is no analogy between this practice and the lengthening of such syllables in Ennius: with him they were really long, and in thesis as well as arsis, *uter essēt induperator* and the like: in Lucr. and Virgil the lengthening is a mere licence permitted in the arsis alone. 28 why an editor should object to *aurata* in Lucr. because *auro* occurs in 27 I do not comprehend: see n. to 1 *magno* and *magnum*: the gilding the *lacunaria* was a necessity with the Romans; the custom is spoken of by Virgil Horace Tibullus Propertius Ovid Lucan Seneca Statius, Val. Flaccus, the Anthologia, Livy Pliny Apuleius Prudentius: [comp. esp. Luc. Phars. X 112 *laqueataque tecta ferebant Divitias, crassumque trabes absconderat aurum.*] It is specially recorded that Pollio did not gild the ceiling of the public library which he built, to spare the eyes of readers. The *auro* of 27 may refer to walls furniture and plate: comp. Livy XLI 20 9 *magnificum templum, non laqueatum auro tantum, sed parietibus totis lammina inauratum.* The imitation of our passage in the culex 61 foll. *Si non Assyrio* cet. has 62 *si nitor auri Sub laqueare domus*, shewing that the writer found *aurata* in Lucr.: the general tone of these vss. is also imitated by Virg. geor. II 461 *Si non ingentem foribus domus alta superbis* cet. 29—33 almost repeated V 1392—1396. 29 *Cum tamen* cet.: comp. 690 *cum tamen inter se versus ac verba necessest Confiteare* cet.; III 645 *cum mens tamen...non quit*; VI 140 *cum tamen...haurit*: Aen. IX 513 *cum tamen omnis Ferre iuvat subter densa testudine casus*; X 509 *Cum tamen ingentis Rutulorum linquis acervos.* [Perhaps the *tamen* expressing the concession implied in the usual subjunctive, tended to preserve this indic. so usual in the older writers.] The sequence of the whole sentence is this, *Si non sunt...Nec...Nec...*, *cum tamen...curant*: the *cum* refers to *natura requirit*; the *tamen* refers to the *Si non*: nature wants no more, when they thus simply enjoy themselves none the less although they have none of these luxuries. With 29—33 comp. culex 67 *at pectore puro Saepe super tenero prosternit gramine corpus, Florida cum tellus gemmantes picta per herbas Vere notat dulci distincta coloribus arva*: the *picta* is nearer the *pingebat* of V 1396; and V 461 and other passages are

likewise here imitated. 30 *Prop. aq. riv.* is also found in the culex 388 and Virg. ecl. VIII 87; and *sub. ram. arb. altae* in Aen. VII 108: comp. too Tib. I 1 27 *sub umbra Arboris ad rivos praetereuntis aquae.* 34 Lamb. compares Hor. epist. I 2 48 *Aegroto domini deduxit corpore febres,* where *deduxit* is the active of *decedunt.* 35 *text. pict.*: Cic. Verr. IV 1 *nego ullam picturam neque in tabula neque in textili fuisse quin* cet.; Aen. III 483 *Fert picturatas auri subtemine vestes...Textilibusque onerat donis;* Ael. Lampridius Heliog. 27 *ita ut de acu aut de textili pictura exhiberetur.* 36 *Iacteris...cubandum est*: the potent. because in the 2nd pers. sing.: see n. to 41 *Cum videas,* and to I 327 *possis;* and comp. Plaut. Men. 103 *Standumst in lecto siquid de summo petas.* *pleb. v.*: V 1429 *Dum plebeia tamen sit quae defendere possit;* Prop. III (II) 25 45 *plebeio sandycis amictu.*

39 *Quod superest*: see n. to I 50. *putandum*: see n. to I 111. 40 *Si non forte...effugiunt* nisi forte eff. *campi* is the *campus Martius*: Horace has *campus* 8 times in this sense, Cic., epist. VII 30 1, *in campo*: Caesar after his consulship remained with his army for three months before Rome and was bitterly attacked by Memmius: does Lucr. here allude to Caesar? 41, and below, *Fervere...Fervere* applied here to the persons and things causing the crowd and bustle: by Varro Virgil and others, see Forc., to the places or things filled with the crowd or bustle, *fervere omnia piratis, Leucaten, litora, fora litibus,* and Lucr. himself IV 608 *Omnia,* i.e. loca, *quae circum fervunt*: with *fervere classem* comp. Accius 482 *classis adit occluditur Fervit. Fervĕre*: so Virgil: the older form; comp. Lucilius' *Fervit aqua et fervet; fervit nunc, fervet ad annum,* which seems strange to Quintil. I 6 8: Lucr. l. l. *fervunt*: so V 1095 *fulgĕre;* and *fulgit,* 'it lightens', more than once; yet Lucr. also knows the 2nd conjugation: see n. to VI 160 and 213. 41 foll. *cum videas, statuas, cum videas*: for this use of the pres. potent. or conj. 2nd pers. sing. comp. n. to I 327. Lucr. has II 849 *cum instituas;* III 854 *cum respicias;* IV 572 *cum videas, possis*: Cicero too, orator 225, *cum aut arguas aut refellas;* Sen. epist. 75 4 *qui, et cum videas illum et cum audias, idem est*: Lucr. III 870 has *ubi videas;* V 100 *ubi adportes;* VI 901 *ubi admoveas*: II 35 *si iacteris;* 1000 *si teneas;* III 948 *si pergas, si numquam sis moriturus;* IV 1070 *si non conturbes.* 41 Aen. V 674 *belli simulacra ciebat;* 585 *pugnaeque cient simulacra;* Livy XL 6 5 *divisas bifariam duas acies concurrere ad simulacrum pugnae;* who also has *simulacrum* and *simulacra navalis pugnae* more than once; and *simulacrum decurrentis exercitus.* 42 the *subsidia* being in support in the rear; the cavalry on each flank. 43 comp. Plaut. Bacch. 941 *hoc insunt in equo milites Armati atque animati probe.* 44—46 Lamb. cites Varro ap. Nonium p. 379 *Non fit thesauris, non auro pectu' solutum, Non demunt animis curas ac religiones Persarum montes, non atria diviti' Crassi.* 51 *fulgorem ab auro*: not

unlike is Livy VIII 29 13 *ingenti ardore militum a vulnerum ira*: see Madv. emend. Liv. p. 170, who cites XXIV 30 1 *tanto ardore militum ab ira*: comp. too XLII 62 3 *ferocia ab re bene gesta*; [XXVIII 15 4 *aestus a meridiano sole*; XXIII 34 7 *litterae quoque ab Hannibale ad Philippum inventae*: see Kuehnast p. 54 55 n. 34. So Mart. X 6 5 *longusque a Caesare pulvis*; Hor. od. IV 4 14 *fulvae matris ab ubere Iam lacte depulsum*;] Ter. Andr. 156 *ab illo iniuria*; Plaut. Bacch. 528 *a me nuntius*; also *Turnus ab Aricia*, *pastor ab Amphryso*, *nostris ab ovilibus agnus*, *a fontibus undae*, *ab Andria ancilla* and the like: Val. Flaccus V 242 expands Lucr. *tum falso fusus ab auro Currere per summi fulgor laquearia tecti*: *ex* is used in the same way I 1086 *magnasque e montibus undas*; Caes. de bell. civ. III 106 2 *vulneribus ex proeliis*; Livy XXV 36 14 *luctus ex morte eorum*; XXXVII 55 4 *legationes ex Asia*; Tac. ann. I 35 *cicatrices ex vulneribus*: and so *de* VI 386, *de caelo fulminis ictus*. 52 *purpureai*: III 689 *gelidai*; IV 537 *nigrai*: he elsewhere avoids this archaism in adjectives, frequent as it is in substantives. **53** *haec rat. pot.*: V 42 *Quae loca vitandi plerumque est nostra potestas*: *haec potestas*, i.e. of conquering religion and the fears of death. *omnis*=omnino: see n. to I 377 on *totus*: comp. Cic. ad Att. XV 20 2 *haec omnis culpa Bruti*; XII 49 1 *Caesaris, propinqui eius, omnis potestas esset*; II 5 1 *erit quaedam nostra potestas*; XIV 13 B 5 *quae tua potestas est*; XVI 16 15 *praesertim cum tota potestas eius rei tua sit, ut* cet.; [Livy X 38 8 *in loco circa omni contecto*: see Kuehnast p. 56.] **54** *laboret*, a favourite word occurring some ten times in this sense. *tenebris*: this word occurs 4 times in as many vss., twice in the metaphorical sense he is so fond of: 15 *Qualibus in tenebris vitae.* **55—61** recur III 87—93, VI 35—41: the three last came I 146—148: see notes there. **55—56** quoted by Seneca epist. 110 6, who adds *quid ergo? non omni puero stultiores sumus qui in luce timemus? sed falsum est, Lucreti, non timemus in luce, omnia nobis fecimus tenebras*: but this is precisely what Lucr. says 54 *Omnis cum in tenebris* cet.: we make of the light of day thick darkness. Comp. Plato Phaedo 77 E ἴσως ἔνι τις καὶ ἐν ἡμῖν παῖς, ὅστις τὰ τοιαῦτα φοβεῖται: with 55—61 L. Mueller compares Lucil. XV 5—10.

62—79: and now I will explain the motion of atoms, how thereby everything comes into and goes out of being: matter is not inseparably united; it is ever going to or coming from things: every individual is thus changing, while the whole remains the same. **62** *Nunc age... Expediam* is thus used by Virg. geor. IV 149; but the phrase recurs also in Lucr. VI 495 and 738. Observe *genitalia, gignant, genitas*. **65** *mobilitas* is his usual word for swiftness of motion: literally great power, facility of moving: he uses also *mobilis mobiliter* and *mobilius*: he has prob. selected the word for this technical purpose, because neither *velocitas* nor *celeritas* would suit the metre. **66** *tu te dictis praebere memento*:

III 135 *tu cetera percipe dicta*, IV 931 *tu fac ne ventis verba profundam*, VI 920 *Quo magis attentas auris animumque reposco*: comp. the above with auctor ad Heren. III 1 *nunc tu fac attentum te praebeas*: *nos proficisci ad instituta pergemus.* It is probable then that the somewhat magisterial tone in which Lucr. so often addresses Memmius was thought becoming in a philosophical teacher. **67** *inter se stipata* has, like so many other terms we have noted in Lucr., a pregnant meaning, so massed together as not to admit of separation: I 345 *Undique materies quoniam stipata quiesset*: atoms are not united together, as the parts of each atom are united in the atom; I 610 *Quae minimis stipata cohaerent partibus arte.* **68** *materies* is of course here as elsewhere the collective term for atoms. **69** *fluere* in this sense of wasting, ebbing away is a favourite expression of Lucr. *omnia* becomes the object to *subducere* in 70. **71** *summa* and **75** *rerum summa* have their proper sense of the whole sum or universe of things; but Lucr. illustrates what he means from what goes on in our world, in *haec rerum summa*, as is natural; for what takes place throughout the universe is more or less a repetition of what happens here. **76** *mutua* is used as an adv. 5 or 6 times in Lucr.: V 1100 we have *mutua inter se*, as here: Virgil uses *per mutua*: Lepidus in Cic. ad fam. X 34 says *summa studia officii mutuo inter nos certatim constiterunt pro nostra inter nos familiaritate.* The sense is that mortals receive life and in their turn give it to others, and so the chain of being goes on: comp. III 964 foll. **77** Ov. met. XV 420 *sic tempora verti Cernimus atque illas adsumere robora gentes, Concidere has.* **79** the well-known metaphor of the torch-race: Varro de re rust. III 16 9 *nunc cursu lampada tibi trado*; the καθάπερ λαμπάδα τὸν βίον παραδιδόντες of Plato. [For the torch-race see Wecklein in Hermes vol. 7 p. 437—452, esp. p. 439—442.]

80—141: first-beginnings, when alone, move ceaselessly through the infinite void by their own inherent motion or it may be after collision with another: some of intricate shapes form after collision a close union and thus help to compose hard bodies; others rebound to greater distances, and form softer bodies; some do not unite at all, but continue to wander through space: the motes in a sunbeam will give some notion of what is meant: single atoms unite into small bodies, these small bodies form themselves into somewhat larger ones; till by little and little they become visible and are seen to move in the sun, though why they move is not seen. **80** foll. atoms, as we have seen, have weight as an inherent property, by which they move down space in straight lines at uniform speeds, until they come into collision with others: how that is possible, will be explained 216 foll. **80** *Si*: to begin a sentence thus abruptly with *si* is in the manner of Lucr.: comp. 1017, III 170, 406, 946, 1053, IV 1026, V 210, 319, 1334. κινοῦνται συνεχῶς αἱ ἄτομοι, and also ἰσοταχῶς, says Epicurus himself in Diog. X 43. **84** this is the

κίνησις κατὰ στάθμην or natural motion sheer downwards. 85 *ictu alterius*, the motion ἄνω κατὰ πληγὴν καὶ παλμόν: therefore he adds *forte*, because this motion is casual. *cita*: see n. to I 1001. *saepe*: see n. to V 1231. 88 *ibus* Lach. wrongly introduces by conjecture into two other places; but it recurs I believe VI 1012: whatever its quantity in Plautus, *ĭbus*, as you might expect from *quĭbus*, is that of hexam. verse; as in Lucil. lib. inc. 114 Mueller: for demonstr. pron. connected with rel. of preceding v. see n. to I 718. 90 *reminiscere*, as proved I 958 foll. *totius summa*, another name for the *omne*. 91 for the position of *corpora* in the second clause see n. to I 15: with *neque habere ubi* comp. VI 1052 *neque habet qua tranet ut ante*; Livy XXVII 12 3 *nec ubi consisteret...habenti*; Cic. ad Att. XIII 2 2 *pedem ubi ponat in suo non habet*; [Brutus ap. Cic. epist. XI 1 4 *ubi consistamus non habemus.*] 92 foll. notice the poetical tautology to emphasise what he says, *sine fine modoque, inmensum patere*; *in cunctas partis* and *undique*; *ostendi* and *probatumst*; and comp. I 1006 1007. 94 *Pluribus ost.* I 988... 1007.

96 *reddita* in this sense of assigned as a property or the like is very common in Lucr.: see 65 *Reddita mobilitas* cet.; also 142, 681, 758, I 203, 577, III 618, IV 178, VI 494. 97 *exercita*: 120 *Conciliis et discidiis exercita crebris*; IV 862 *exercita motu*. 98 *confulta* is a ἅπαξ λεγόμ.: if the word is right, which is somewhat doubtful, it must mean, resting and pressing one against the other, as the finer and smoother atoms would do, which form the air, sunlight, etc.: it=mutuo fulta: comp. Stat. Theb. VI 862 *diu pendent per mutua fulti Bracchia*. The abl. *magnis interv.* and 99 *brev. spatiis* and 101 *Exiguis int.* mean leaving great or small spaces between, with great or small spaces between: the great and small are of course relative merely, and have reference to the extremely minute atoms; the great distance would be inconceivably small in relation to anything of sensible magnitude: comp. Epic. Diog. Laert. X 43 καὶ αἱ μὲν μακρὰν ἀπ' ἀλλήλων διίστανται, αἱ δ' αὐτὸν τὸν παλμὸν ἴσχουσιν, ὅταν τύχωσιν ἐπὶ τὴν περιπλοκὴν κεκλιμέναι ἢ στεγαζόμεναι παρὰ τῶν πλεκτικῶν: some rebound far, when the atoms are smooth; others have simply a throbbing or oscillation, when they have got entangled or covered in by those which are shaped for entangling. However close they are, even if in a mass of iron, 'there is space between them: they collide, they recoil, they oscillate', to use Tyndall's words. And this continual oscillation of atoms, in a lump of iron even, goes on exactly at the same speed as that of the atoms racing down space: strange as may appear this anticipation by Epic. and Lucr. of modern theory. The force of στεγαζόμεναι in relation to the moving atoms is well illustrated by its use in 66, where Epic. is speaking of the soul: ὅταν τὰ στεγάζοντα καὶ περιέχοντα μὴ τοιαῦτ' ᾖ ἐν οἷς νῦν οὖσα ἔχει ταύτας τὰς κινήσεις. 99 *ab ictu*: see n. to VI 968. 102 *perplexis fig.*: 459 *perplexis indupedita*;

463 *e perplexis...elementis*; 394 *hamatis inter se perque plicatis*; III 331 *Inplexis principiis.* 103 *radices*: these lay the first foundations or roots of stone. *fera ferri*: Cicero and Tibullus thus play with the assonance *ferus et ferreus*, and Ennius has *fero ferro.* 105 *Paucula*, i.e. compared with the whole number. 106 *longe longeque*: so III 69; Hor. sat. I 6 18. This *longe*, as 98 *magnis*, is of course relative: far only in respect of the extremely small atom. 111 *etiam* seems clearly to have reference to *recepta*: quamvis recepta, tamen non potuere etiam consociare: with this comp. *sic deinde locutus* for *sic loc. deinde*, and the like, in Virgil. [112 *uti memoro* apparently=qualem (or quem) memoro, and resembles I 442 *Aut erit, ut possunt in eo res esse*: comp. Plaut. Amph. 731 *Recte dicit, ut commeminit*, where *ut*=qualia or quae.] *simulacrum* and *imago* are exactly synon.: in IV he regularly uses *imago* or *imaginibus, simulacra* in the plur. nom. and acc. for the εἴδωλα of Epicurus. 114 *Contemplator enim cum* recurs VI 189: Virg. geor. I 187 *Contemplator item cum*: IV 61 *Contemplator.* *cum... cumque*: I know no other example of *cumque* following *cum.* 115 curiously varied Aen. III 151 *qua se Plena per insertas fundebat luna fenestras.* 116 *per inane* seems loosely put for the air which serves as a place for these motes to move about in, and therefore is to them what the real *inane* is to the atoms: just below, 151, he contrasts the air which is not *inane vacuum* with 158 the real *inane vacuum*: Aen. XII 906 *vacuum per inane* is still more loosely put for the air: and Ovid in the metam. so uses *per inane* and *per inania.* 117 *lumine in ipso*: see n. to IV 736 *aere in ipso.* 118 *proelia pugnas* recurs IV 1009: Lach. well illustrates it by *pugnant proeliant, turbas lites, morbum mortem, donum praemium*, from Plautus and Terence. [So Lucil. XXIX 25 *coniugat communicat*: see Mueller there; Plaut. Amph. 891 *stupri dedecoris*: see Ussing there.] Comp. too Livy XLV 40 1 *ponderibusque auri argenti*: in old Latin the idiom is widely extended; in Livy I 32 11 a single sentence of an old formula contains *quarum rerum litium causarum, populi Romani Quiritium, quas res dari solvi fieri oportuit*: the words have usually a close and formal connexion: *usus fructus, emptio venditio, aequum bonum, calce harenato.* 119 *dare pausam*, like *dare motum, discessum, ruinam* and the like,=facere pausam, facere finem: see n. to IV 41. 123 *Dumtaxat*: this curious word occurs in another of its senses 931: there it=*certe*, 'at all events', a sense it often has in the younger Pliny. Cic. Brut. 285, cited by Hand Turs. II p. 33, *hoc recte dumtaxat*, the word seems to mean, 'so far as it goes', as here: III 377 it means 'only', 'so much and no more': a more usual sense. [For the meaning 'at all events' see Cic. epist. XII 1 1 *ut mihi videamur omne iam ad tempus ab illo dumtaxat sordidissimo periculo tuti futuri*; XVI 26 1 (Quintus') *verberavi te cogitationis tacito dumtaxat convicio*: auct. bell. Afr. 90 3 *se eis dumtaxat vitam concessu-*

rum. It is also used in one of the two first senses by Q. Cic. de pet. 53 *multitudo ex eo, quod dumtaxat oratione in contionibus ac iudicio popularis fuisti, te a suis commodis non alienum futurum*; and Cic. ad Q. fr. I 1 11 *dumtaxat finibus iis praestabis.*] The corp. inscr. Lat. will shew that it was a very old legal term, which passed into the common language. 126 *turbare*=turbari: so 438, V 502, 504, VI 370. 129 *ibi* i.e. in the sunbeams. 132 *a princ.* from the first-beginnings upwards: comp. 138. 137 *proporro*: see n. to V 312. 138 *ascendit*, because what is invisible is said to be below our sense: III 274 *Nec magis hac infra quicquam est*, IV 111 *primordia tantum Sunt infra nostros sensus.* 141 depends on the prec. relative clause, as illustrated in n. to I 718. *app. ap.*: see n. to I 826. Lucr. has here anticipated in a striking way the most modern theories of the most advanced thinkers: see N. British Review l. l. p. 220; and Prof. Maxwell, Theory of heat p. 285 'the opinion that the observed properties of visible bodies apparently at rest are due to the action of invisible molecules in rapid motion is to be found in Lucretius'. In his Introductory lecture p. 21 he says 'investigations of this kind, combined with a study of various phenomena of diffusion and of dissipation of energy, have recently added greatly to the evidence in favour of the hypothesis that bodies are systems of molecules in motion'. Martha too, p. 287, is worth reading: Lucr. he tells us, had a glimpse of that great principle of modern physics which teaches that the general forces of nature never are at rest even in the inorganic world: we do not see this perpetual movement of the atoms in bodies, because our eyes are too gross to apprehend it.

142—164: the sun rises, and the world is at once clothed in light; yet its rays are complex, not single, and do not pass through a void: how much more swiftly then must first-beginnings move! since they travel through a perfect void and travel singly, and each is one indivisible whole. 144 *Primum* cet.: Aen. IX 459 *Et iam prima novo spargebat lumine terras...aurora*: so that Virgil seems, as Lach. remarks, to have understood *primum* of time, not of order. 145 *var. vol.*: see n. to I 589. 146 *tenerum*: see n. to I 207. *liquidis voc.*: IV 981 *citharae liquidum carmen*; V 1379 *liquidas avium voces.* *loca*: Virg. geor. IV 515 *et maestis late loca questibus implet.* 148 *Convestire*: Cicero in his Aratea uses I find *convestire* or *vestire* 5 times of light: Lucr. has prob. borrowed this, as many other expressions, from him: Aen. VI 640 *lumine vestit*: par. lost III 10 *as with a mantle didst invest.* 150 *vapor, vapores*, etc. occur very frequently in Lucr. and always in the sense of heat. 152 *aerias quasi...undas* i.e. the air which offers a resistance like waves of water. [154 *complexa*: see n. to V 922.] 155 there is at once an internal and external hindrance to absolutely swift motion. *inter se retr.*: they pull and are pulled back, because in one ray there is an enormous number of atoms combined. *extra*: see 151.

156 *Officiuntur*, the only instance in Lucr. where a verb which governs a dat. in the active, has a personal passive: he twice uses the part. *offectus*, IV 763 V 776. The licence is altogether rare: Horace has *imperor* and *invideor*; Ovid thus uses *credor* more than once, and *dubitor*; Virgil has the partic. *creditus*; Tacitus *credebatur*; Caecina ap. Cic., the auctor ad Heren. and others have *persuasus est*; the auctor ad Heren. has also *supersedenda causa*; the auctor bell. Hisp. *est litata*; Metellus Numidicus *illi interdicti*: several of these are homely writers. **158** *Cum...foris* is in contrast with 151 *Non per...undas*; **159** *ipsa... feruntur* with 153 *Nec singill....ire*: there can be no doubt therefore that 159 *ipsa, suis e partibus una* refers to the *primordia*, each one of which is a *unum suis e partibus*, that is one indivisible whole of parts which are absolute leasts and incapable of existing alone, as we have explained so fully I 599 foll.: with *suis e partibus una* comp. III 545 *contracta suis e partibus* [anima]: he could hardly without an awkward periphrasis have expressed what he means without using the plur. *una*; nor is it any harsher than Cic. pro Flacco 63 *unis moribus et numquam mutatis legibus vivunt*; or the auctor ad Heren. III 33 *duplices similitudines esse debent; unae rerum, alterae verborum. ipsa, una e*=ipsa, quorum quicque est unum e. **160** only means that they race perpendicularly down space, so as to continue the direction they have once taken, *in unum locum, in quem coepere* [ferri]. **163 164** recur IV 207 208. **163** *Multiplex*, many times as much, πολλαπλάσιος. **164** *pervolgant*= I 4 Concelebras. Epicurus says himself in Diog. Laert. X 46 ἡ διὰ τοῦ κενοῦ φορὰ κατὰ μηδεμίαν ἀπάντησιν τῶν ἀντικοψάντων γινομένη πᾶν μῆκος περιληπτὸν ἐν ἀπερινοήτῳ χρόνῳ συντελεῖ. The above comparison and illustration are plain enough in reference to the movement of the unobstructed atom down space; but the atom's own motion is of the same speed, even when it is caught in the hardest body and can only oscillate through an inconceivably small space: see above, n. to 98; and below, 297 foll.

165—183: they are greatly mistaken that think the course of nature could not go on, nor the products of the earth and the race of men be continued without divine providence: nay I might prove from the imperfection of this world that it is not divinely created.—That these vss. have no proper connection with what precedes or follows; that 184 continues the argument as it was left at 164; and that in a finished composition 183 and 184 could not stand side by side, has been demonstrated by Lach. He shews with as much certainty as if he had had the poet's ms. before him, that 165—183 must have been a subsequent addition which the author's death prevented him from adapting to the context: in this state the first editor must have introduced them into the body of the poem. Lach. has also proved that V 195—234 which fulfil the promise of 182, are likewise a subsequent addition; as well as the cognate argu-

ment of IV 823—857, where the doctrine of final causes in respect of the bodily organs is so earnestly denied. On these and similar sections of the poem see what is said above p. 28—30, where I attempt to carry Lachmann's argument somewhat farther. Some vss. as is said in notes I, are clearly wanting before 165: whether they ever existed in the poem and were not rather lost before it came into the first editor's hands, we may well doubt with Lach. The way in which the latter supplies the meaning of what is wanting, seems to me however somewhat awkward: I should be disposed to make the gods the subject to *persectari* and *videant*, and to take the reasoning to be something like that in Cic. de div. II 105 foll. where it is said *negant* id esse alienum maiestate deorum. *scilicet causas omnium introspicere, ut videant quid cuique conducat.* You must not suppose that the gods have anything to do with the motions and unions of these atoms: nay it would not be even consistent with their majesty and happiness to be tormenting themselves with all these minutiae, 'and to be following up the course of every single atom to see how everything goes on'.

165 *persectari* recurs IV 1010, and appears to be peculiar to Lucr. 167 *quidam*: the stoics are doubtless pointed at, perhaps also the academics. 169 *admoderate* seems also peculiar to Lucr.: Gronov. observ. III 5 compares the *attemperate* of Ter. Andr. 916 which has precisely the same sense. 171 *Et iam cetera* appears to be used almost absolutely, as *cetera, et cetera* are in so many ways: *fieri* or *naturam facere non posse* may be understood from the context. 172 173 these two vss. are connected with the relative clause, as 141 and some of the instances given in n. to I 718. 172 *deducit*: metaphor from leading the bride to her husband: comp. I 96 *Deductast* and n. there. 173 *blanditur propagent* for *blandiendo hortatur ut prop.* as Lach. observes: he compares Vitruv. pref. to III: but comp. too Livy XXI 1 4 *Hannibalem...pueriliter blandientem patri Hamilcari, ut duceretur in Hispaniam.* 174 *quorum* i.e. *hominum*, understood from *genus hum.*: see n. to IV 934. 175 *omnibu' rebus* is so used by Cicero, as div. in Caec. 61 *tu, cum omnibus rebus inferior sis, hac una in re* cet. *ego, si superior omnibus rebus esses, hanc unam ob causam* cet.; similarly III 1026 *Qui melior multis quam tu fuit, improbe, rebus.* 177—181 recur, slightly altered, V 195—199. 179 *reddere*: see n. to I 566 *reddi.* 181 *stat*: Lach. cites I 564 *Stare*, and, a doubtful instance, VI 1058 *Pondere enim fretae partim stant*: perhaps Lucr. was thinking of Lucilius' *stat sentibu' pectus*, and *stat sentibu' fundus*; as Virgil, Horace, and Ovid possibly, when they wrote *stat pulvere caelum, alta stet nive candidum Soracte, saxo stant antra vetusto*, respectively. [See Nonius p. 392 6 and Sisenna quoted there, and esp. Varro Eumenid.] At all events Caecilius' *ager autem stet sentibus* and Titinius' *fundi stabunt sentibus* shew that the phrase was proverbial. Comp. too Aen. III 210 *stant nomine dictae*; and Lucr.

II 843 *manere*, VI 1274 *templa manebant*. *constare* is much oftener used by Lucr. in this sense. Chrysippus wrote several works περὶ τοῦ μηδὲν ἐγκλητὸν εἶναι μηδὲ μεμπτὸν κοσμῷ: to him and other stoics Lucr. plainly refers.

184—215: you are to know too that nothing naturally mounts upwards: flames and the growth of crops and trees are only apparent exceptions: thus blood from a wound spirts up; and a log forced down into the water starts up again; yet we know these things tend downwards by nature: so it is with flame: observe meteors and the like falling to the earth; the rays of the sun tending downwards; lightnings flying about and falling to the ground: this is their natural tendency.—This argument is well and clearly put by Lucr.: it is directed against the stoics: see notes to I 1083 foll. where the same teachers are refuted; and the same false instances of fire, crops and trees are cited. 184 *Nunc locus est*: Virg. geor. II 177 *Nunc locus arvorum ingeniis*: *est* being omitted, as so often by him compared with Lucr. 187 *flam. corp.* a mere periphrasis for *flammae*: *corpora* are not here the *prima corpora*. *tibi dent fraudem* = Cicero's *facere fraudem alicui*: see n. to IV 41. 188 *aug. sum.* recurs V 681. 191 *subsiliunt*: Cicero in setting forth this stoical doctrine, Tusc. disp. I 40, uses the word *subvolent*. 192 *degustant*: so he himself, Virgil and Horace apply *lambere*. *tigna trabesque* here and VI 241 are used in their restricted sense: *tigna* the rafters let into the *trabes* or main beams: 196 they are used generally for any large pieces of timber. 194 *Quod genus* or *quod genus est*, an antique phrase which he and the auctor ad Herennium often use. The latter appears always to omit *est*; as I 14, II 19 bis, 20, 45, 49, III 29, 31; but II 48 *quod genus ii sunt*: this makes Lachmann's insertion of it here and elsewhere still more unjustifiable. Here and in the auctor ad Heren. it means no more than *velut*; as in Lucil. III 29 Muell.: [see the instances Mueller, p. 204, quotes from Cicero de inv.] 196 *Nonne vides*: Lamb. notices his fondness for this phrase. 198 *Derecta*: see n. to VI 823: it has here its literal sense 'perpendicular' opposed to *obliqua*: Caes. bell. Gall. VII 23 *trabes derectae...in solo conlocantur*; IV 17 4 *non sublicae modo derecte ad perpendiculum*. *mag. vi mul.*: Nepos VII 3 3 *non sine magna multorum consensione*; Lucil. lib. inc. 118 Muell. *multorum magnis ictibus*. 200 *plus parte* = plus iusta parte, or as he says himself IV 1231 *plus parte aequa*; i.e. it starts farther out than it would be, if left alone: Ovid trist. III 3 16 *plus in nostro pectore parte tenes*; V 10 30 *tecti plus quoque parte tenet*; fasti IV 301 *plus quam pro parte laborat*: in all these places it may mean *plus dimidia parte*; as in I 617 *pars*; and in Germanicus Caesar Arat. phaen. 588 *Bootes In terras abit et noctis plus parte relinquit*: he means clearly more than half of night, though the expression of Aratus 583 is very obscure, πλεῖον δίχα νυκτὸς ἰούσης: Cicero 364 translates

recedit Post mediam labens claro cum corpore noctem. Mart. II 24 6 *Das partem? 'multum est'. Candide, das aliquid?*: Ovid met. III 43 has then the fuller form, *media plus parte leves erectus in auras.* *multis, omnibus partibus* are also very indefinite in meaning. 202 *deorsum* trisyll., 205 dissyll.: so with *seorsum* and *seorsus*: he also uses indifferently the form *sorsum*: see n. to III 631. 206 so V 1191 *Noctivagaeque faces caeli flammaeque volantes*: comp. Virg. geor. I 366 *noctisque per umbram Flammarum longos a tergo albescere tractus*: Lucan. I 527 *caeloque volantes Obliquas per inane faces* may have had this v. and 213 in his mind. 209 *stellas et sidera*, single stars and constellations: see lexicons, and Macrob. somn. Scip. I 14 21, who so explains Cicero's *illis sempiternis ignibus quae sidera et stellas vocatis.* 211 *lum. cons. arva* means perhaps no more than Virgil's *spargebat lumine terras*; though Arist. poet. 21 mid. says τὸ τὸν καρπὸν μὲν ἀφιέναι σπείρειν, τὸ δὲ τὴν φλόγα ἀπὸ τοῦ ἡλίου ἀνώνυμον· ἀλλ' ὁμοίως ἔχει τοῦτο πρὸς τὸν ἥλιον καὶ τὸ σπείρειν πρὸς τὸν καρπόν, διὸ εἴρηται σπείρων θεοκτίσταν φλόγα. 213 *transversos* and therefore not tending upwards: for the constr. see n. to 217 and 226. 214 *abrupti*: see n. to I 724: Aen. III 199 *ingeminant abruptis nubibus ignes*; Ov. met. VI 696 and VIII 339 *elisi nubibus ignes.* [*abrupti*; 'regelrecht mit *ab*, doch Cic. Phil. 14 12 *haec se prima latrocinio abrupit Antonii.*' Draeger hist. synt. I p. 466.] 215 *concursant* here = discurrunt, its usual sense; III 395 *concursare* = concurrere, to clash. Observe in this passage the frequent assonance alliteration and redundancy of expression by which the poet seeks to give emphasis to his argument, to which he not unnaturally attaches much importance, as refuting his chief adversaries: *sursum ferri sursumque meare*; *sursus versus...Et sursum* answered just after by *deorsum*; *vi* recurring four times within five lines; *Emicat exultans*; 196 *tigna trabesque*; *magna vi multi...aegre*; *sursum revomit, remittit*; *emergant exiliantque*; *sursum succedere* answered by *deorsum deducere*; *stellas et sidera.*

216—224: know too that atoms while travelling down space in parallel straight lines, at quite uncertain times and spots swerve from the perpendicular to an imperceptible amount.—This is the famous κίνησις κατὰ παρέγκλισιν of Epicurus. My general remarks on the theory will be reserved for 292. Cicero de fin. I 19 puts it very clearly, *deinde ibidem homo acutus, cum illud occurreret, si omnia deorsum e regione ferrentur et, ut dixi, ad lineam, numquam fore ut atomus altera alteram posset attingere, itaque attulit rem commenticiam: declinare dixit atomum perpaulum quo nihil posset fieri minus; ita effici complexiones et copulationes et adhaesiones atomorum inter se, ex quo efficeretur mundus omnesque partes mundi quaeque in eo essent*, and comp. de fato 22. 217 *corpora* = of course *prima corpora.* 217 and 226 *rectum per inane* = *recte* or *ad lineam per inane*; as in 213 *Transv.*: = trans-

verse per imbres; *rectum* is used as *primus, postremus* and the like are so often used for their adverbs; see n. to 1080 and III 250 *postremis datur ossibus*: Cic. l. l. uses *recte* and *ad lineam* to express the same thing: VI 689 *rectis ita faucibus eicit alte*; IV 550 *rectoque foras emittimus ore*: Aen. VI 900 *recto litore*, and VIII 57 *recto flumine*: in the sentent. Minuc. corp. inscr. I 199 *sursum rivo recto, inde recto rivo, sursumvorsum iugo recto, susum iugo recto, sursum iugo recto* (six times), *iugo recto, deorsum iugo recto, dorsum iugo recto* are all found: Plaut. Bacch. 711 *Recta porta*; Ter. Ad. 574 and 582 *hac recta platea*; Livy VII 15 5 and XXXVIII 20 8 *obliquo monte*; IX 35 7 *per obliqua campi*; Ov. met. V 132 *in obliquo inguine*; Stat. silv. I 3 66 *per obliquum amnem*; [Val. Flacc. I 484 *per obliqui...conpendia montis.*] 218 foll. see N. P. Howard Journ. of phil. I p. 123. *fer. pond. propr.* = *ponderibus suis ferri* of V 189 and 424; and expresses the natural gravitation downwards of the atoms by their own weight: these vss. are precisely illustrated by Cicero l. l.; and de fato 22 *qui potest pelli alia* (atomus) *ab alia, si gravitate feruntur ad perpendiculum corpora individua rectis lineis, ut Epicuro placet?*; also 23 cited in n. to 251; and 25; and de nat. I 69 *ait atomum, cum pondere et gravitate directo deorsus feratur, declinare paululum.* With *spatio* = *via*, comp. Cic. de div. I 17 *certo lapsu spatioque feruntur*; de nat. II 49 *spatiis immutabilibus ab ortu ad occasum commeans*; and with *se dep. spatio*, Horace's *recto depellere cursu*; Quintilian's *recta via*, and *recto itinere depulsus.* The *se depellere* would seem to be used, to shew that this swerving comes from their own inner impulse. *ferme*: see n. to I 14 *ferae.* 219 *paulum, Tantum quod momen mutatum d. p.* is well expressed by Cic. l. l. *perpaulum quo nihil posset fieri minus.* 220 *Tantum quod*, just and only just, is common in Cicero, but he seems to use it of time, *tantum quod..., cum* cet.: Livy XXII 2 9 *tantum, quod extaret aqua, quaerentibus*: [but just as Lucr. has *paulum, Tantum quod*, so Sen. rhet. controv. I 1 20 has *praestitisse se dixit exiguum, tantum quo spiritum posset producere.*] *momen*, which as we have said to I 435 Lucr. uses for *momentum*, here signifies the ῥοπή or inclination of the balance. 223 *Nec* cet. as expl. in what follows. The atoms would have gone on for all eternity to descend in parallel lines with equal velocities. Lucr. does not tell us whether every atom thus swerved at some time or other; nor whether an atom could thus swerve only once; and Cicero seems not to know what Epicurus taught on this point.

225—250: you must not think that the heavier can overtake the lighter atoms and so give birth to things: a heavier thing falls more quickly than a lighter through water and air, because these offer unequal resistance to unequal weights: not so with void which yields to light and heavy alike: nothing therefore can account for the first collision of atoms except this declination; which must be the least possible, that we

may not attribute to them oblique motions. 225 *potesse*: see n. to I 665. 226 *feruntur*: see n. to I 1058: yet *ferantur* may be right, as the indic. here is very harsh. [For the mood comp. Cic. Lael. 56 *ut, quanti quisque se ipse facit, tanti fiat ab amicis*: see Seyffert (Mueller) here.] 228 *reddere* in Lucr. often, as here, means simply *dare* or *edere*: 890 *vitalem reddere sensum*; Ov. met. VI 308 *nec bracchia reddere motus.* 232 *tenuis* seems to be a nomin. as I 281 *mollis.*

236 237 almost the same as I 1079 1080. 238 *quietum*: a poetical epithet implying that it can offer no resistance active or passive; *Quod manet intactum neque ab ictu fungitur hilum.* 239 comp. I 1076 and Epicurus there quoted. 240 foll.: hear Epicurus himself in Diog. X 61 ἰσοταχεῖς ἀναγκαῖον τὰς ἀτόμους εἶναι, ὅταν διὰ τοῦ κενοῦ εἰσφέρωνται μηδενὸς ἀντικόπτοντος· οὔτε γὰρ τὰ βαρέα θᾶττον οἰσθήσεται τῶν μικρῶν καὶ κούφων, ὅταν γε δὴ μηδὲν ἀπαντᾷ αὐτοῖς· οὔτε τὰ μικρὰ τῶν μεγάλων, πάντα πόρον σύμμετρον ἔχοντα, ὅταν μηθὲν μηδ' ἐκείνοις ἀντικόπτῃ. 244 *minimum*: so Cic. de fato 22 *tertius quidam motus oritur extra pondus et plagam, cum declinat atomus intervallo minimo, id appellat* ἐλάχιστον. The use of *minimum* or ἐλάχιστον here is quite analogous to that so fully discussed I 599 foll.: as there Lucr. and Epicurus spoke of the part of an atom as an absolute least, a thing the least possible, so small that it could not exist alone, and could not therefore be looked upon as an individual thing; so here this motion of declination is so small, as not to admit of having the distinctive term 'slanting' applied to it: he thus hopes to escape the necessity of asserting that atoms can of themselves move obliquely. 248 *quod=quoad* or *quantum*: see Lach. to V 1033: so *quod commodo tuo fiat, quod potero, quod potes, quod poteris, quod licebit, quod commodo tuo facere poteris, quod sine molestia tua facere poteris, quod adhuc coniectura provideri possit, nusquam quod sciam, non ero quod sciam, quod commodo reipublicae facere posset, quod sine iactura reipublicae fieri posset* in Cicero Terence Plautus Caesar Livy respectively. 249 *recta regione* seems unquestionably right; I cannot understand Lachmann's objections: IV 1272 *recta regione viaque*; 514 *rectis regionibus exit*; Livy XXI 31 9 *non recta regione iter instituit, sed ad laevam...flexit*; Cic. Verr. V 176 *si qui tantulum de recta regione deflexerit*; and 181 *haec eadem est nostrae rationis regio et via*; Caes. de bell. Gall. VII 46 1 *oppidi murus ab planitie...recta regione, si nullus amfractus intercederet, MCC passus aberat*; [VI 25 2 *rectaque fluminis Danuvii regione pertinet ad* cet., *hinc se flectit sinistrorsum diversis ab flumine regionibus*:] in the sentent. Minuc. corp. inscr. I 199 *recta regione*, 'in a direct line,' twice occurs. 250 *sese* is harsh thus separated from *declinare*; but I now think it is what Lucr. wrote; as he has many such collocations of words, sometimes in order to produce a peculiar effect, sometimes from pure indifference: see the instances in n. to III 843 *Et si iam nostro sentit*; and comp. III 916 *Tamquam in*

morte mali cum primis hoc sit eorum; 196 *Namque papaveris aura potest suspensa levisque Cogere ut ab summo tibi diffluat altus acervus,* to bring into relief the *papaveris*; v 65 *Ut mihi mortali consistere corpore mundum Nativomque simul ratio reddunda sit esse*: 572 *Forma quoque hinc solis debet filumque videri, Nil adeo ut possis plus aut minus addere, vere,* is very similar to our passage.

251—293: again if there is no such declination of atoms to break the eternal sameness of their motions, the perpetual sequence of cause and effect, whence have all living things freewill? whence can we change our motions at pleasure? thus horses cannot start in a race at once: motion has to spread from the heart through the limbs: thus too when we are carried along by an external force, there is something in us which resists, and enables us sometimes to stop: while the weight then of atoms enables *them* sometimes to withstand the external force of blows, it is only this declination of atoms at quite uncertain times and places which gives the mind its freedom of action. 251 foll. Cic. de fato 23 states this as the chief motive with Epicurus for devising this *tertius quidam motus extra pondus et plagam*: *hanc Epicurus rationem induxit ob eam rem, quod veritus est ne, si semper atomus gravitate ferretur naturali ac necessaria, nihil liberum nobis esset, cum ita moveretur animus ut atomorum motu cogeretur*; and Epic. himself in Diog. x 134 ἐπεὶ καὶ κρεῖττον ἦν τῷ περὶ θεῶν μύθῳ κατακολουθεῖν ἢ τῇ τῶν φυσικῶν εἱμαρμένῃ δουλεύειν·...ἡ δ' ἀπαραίτητον ἔχει τὴν ἀνάγκην. 252 *ordine certo*, i.e. if they move straight down by inherent gravity and only change their motion by *plagae*, or collision with other atoms. 258 *progredimur* we men for instance among other living beings. Epicurus always passionately maintained the doctrine of freewill in opposition to the everlasting necessity of Democritus as well as most of the stoics, τῆς ἀιδίου κινήσεως μηχανώμενος ἐλευθερῶσαι καὶ ἀπολῦσαι τὸ ἑκούσιον, ὑπὲρ τοῦ μὴ καταλιπεῖν ἀνέγκλητον τὴν κακίαν, says Plut. de repug. stoic. 34, p. 1050 C. 262 *rigantur*, spread over the body like so many *rivi*: comp. IV 907 *somnus per membra quietem Inriget* with Furius in Macr. sat. VI 1 44 *mitemque rigat per pectora somnum*: Aetna 385 *quaecumque rigant incendia silvae.* 263 *Nonne vides* cet. has suggested his simile to Virgil, geor. III 103 *Nonne vides, cum...ruuntque effusi carcere currus* cet. *tempore puncto*: a favourite phrase of his: VI 230 *puncto in tempore*: it=puncto temporis, i.e. while the smallest point of time is pricked down or marked. 265 *de subito* recurs III 643. 267 *conquiri* i.e. be sought out and brought into communication one part with the other. 269 *corde* the seat of the *animus.* 270 *id* seems to refer to the preceding v.: *creatum hunc initum motus*: comp. *id* in Plaut. aul. 8, 10 and 265: then perhaps *motum* alone is the subject of *dari.* 271 *Inde...porro*: Wak. compares Aen. V 600 *hinc maxima porro Accepit Roma*: I 461 *porro deinde*

seems different; see n. there. *totum corpus et artus*: he has many such pleonasms; though this might be explained 'through the body generally and each of its parts': so 282 *per membra per artus*; IV 887 *quae in corpore toto Per membra atque artus animai dissita vis est*; 1042 *Per membra atque artus decedit corpore toto*: VI 797 *membra per artus Solvunt*; 945 *per omnia membra, per artus.* 272 *similest ut cum* seems like *similis ut si qui, tamquam si, quasi*, which occur in Cicero: Pomponius 74 *Simile est quasi cum fulgit*; [Plaut. epid. 621 *Est consimilis quasi cum* cet.] *ictu* depends on *impulsi.* 285 foll. see Cic. de fato quoted at 251: the passage tallies exactly with this; *pondus* and *plaga* denote there, as here, the natural and the impressed motion of atoms. 288 foll. Lucr. too, like Cicero l. l., assigns the freedom of the will as the chief proof of the necessity of this third motion: the natural gravity of atoms gives them, says Lucr., a certain independence and power of resisting extraneous force; but the mind itself can only escape from inexorable necessity and acquire freedom of action by this fitful declination of atoms. 289 *necessum est* is used several times by Lucr. as well as by Plautus and Livy: but Lach. to VI 815 justly observes that *necessum* used as it is here with an epithet is singular enough. 291 *ferre patique*: so Mart. XII 26 8: Livy X 11 12 *ferre ac pati.* V 314 *perferre patique*, which Horace uses more than once, and Martial VII 39 3; Terence has *perferre ac pati*, Cicero *patietur perferet* and the like, [Servius Sulpicius ap. Cic. epist. IV 5 3 *haec sufferre et perpeti.*] 292 *clinamen*: see n. to I 435 and 653; it = *declinatio* or *inclinatio.*

This theory has naturally enough drawn down on Epicurus the scoffs of his many adversaries: res tota ficta pueriliter, says Cicero: the whole business is contradiction and ridiculous nonsense, echoes Bentley in his Boyle lectures. Even his friends have mostly here deserted him: Marullus, one of the most enthusiastic of them, writes in the margin of Mon. 'absurditas' 'insania'. Yet there is something grand and poetical in its very simplicity. He wished, like other thinkers, to derive his system from as few first principles as possible: he saw in mind his atoms descending from all eternity in uniform blind motion. How then was existence possible? a sentient first cause was to him inconceivable. This *minimum* of declination then, this *perpaulum quo nihil posset esse minus*, rose before his reason and imagination, as the simplest theory which would solve the great problem of being, of the creation of this and all other worlds with all that is in them. What system-monger but somewhere or other reaches a point where reason must be silent or self-contradictory? In a curious memoir of the Berlin transactions for 1782 by G. L. Le Sage, called Lucrèce Neutonien, the author ingeniously argues that if Epicurus had had but a part of the geometrical knowledge of say his contemporary Euclid, and conceptions of cosmography the same as

those of many then living, he might have discovered the laws of universal gravity, and not only the laws, but, what was the despair of Newton, its mechanical cause. Had he supposed the earth to be spherical and made his atoms move in directions perpendicular to the surface of a sphere, that is towards its centre, he might not only have proved the law of the inverse square of the distance, but have demonstrated the cause of that law. But the truth is Epicurus might probably have left his worlds to shift for themselves and let eternal time past take the place of a first cause, if he had not wanted this theory mainly as we have said to explain the great mystery of freewill: he wished to mark this as one of the cardinal points of difference between himself and Democritus whom Cicero praises for choosing to accept fate and necessity rather than have recourse to such a doctrine as this of Epicurus. It is for this reason that Lucr. dwells at such length and with such emphasis on this part of the question; out of respect for Democritus as well as opposition to the stoics. See N. British Review l. l. p. 223 'it is a principle of mechanics that a force acting at right angles to the direction in which a body is moving does no work, although it may continually and continuously alter the direction in which the body moves...It is clear to us that Epicurus, when he devised his doctrine of a little swerving from the straight path of an atom, had an imperfect perception of this mechanical doctrine ...We can see that their conception was not stupid, it was simply false, as all physical explanations of the origin of energy and matter must be'.

294—307: the matter of the whole universe never was either more or less condensed than it is now: the motions which first-beginnings now have, they always have had and will have: what they have produced, they will again produce: the sum of things no force can change; for no new matter can escape out of the universe nor come into it and change the order of nature. 294 foll. as his atoms are eternal, it is an axiom that none can come into being or go out of being: the sum of matter therefore must ever be the same. 296 *adaugescit*: in the use of this word Cic. prognost. frag. 3 has preceded him. 297 *in motu...in eodem*: see n. to I 999. 300 *quae consuerint* i.e. ea quae, such things as: the subj. is quite in place, though Lamb. objects to it. 301 *Condicione*: this spelling is now incontrovertibly fixed by reason and authority; *cond.* is related to *condicere*, as *dicio* to *dicere*: the latter point is proved by Cicero himself de leg. agrar. II 39, where he puts together *dicioni iudicio*, and then clearly implies that *dicere* is to *dicio* what *iudicare* is to *iudicium*. 305 *quicquam est extra*: comp. v 361 *summarum summa est aeterna neque extra Qui locus est quo dissiliant neque corpora sunt quae Possint incidere*, and I 963 *extra summam quoniam nil esse fatendum*. Epicurus in Diog. Laer. x 39 says more generally τὸ πᾶν ἀεὶ τοιοῦτον ἦν οἷον νῦν ἐστὶ καὶ ἀεὶ τοιοῦτον ἔσται· οὐθὲν γάρ ἐστιν εἰς ὃ μεταβάλλει, παρὰ γὰρ τὸ πᾶν οὐθέν ἐστιν ὃ ἂν εἰσελθὸν εἰς αὐτὸ τὴν μεταβολὴν

ποιήσαιτο. With this paragraph comp. N. British Review l. l. p. 225 'this proposition foreshadows the doctrine of conservation of energy. It is coupled with the assertion that the sum of matter was never denser or rarer than it now is, a proposition which we may admit in the sense that the mean density of the universe is constant...It is clear in all his work that Lucr. conceived two things as quite constant: atoms were neither created nor destroyed, and their motion could neither be created nor destroyed. He believed that each atom kept its velocity unaltered. The modern doctrine is that the total energy of the universe is constant, but may be variously distributed, and is possibly due to motion alone ultimately, though this last point has not been proved'. The amount of motion in the παλμός or oscillation of the atoms forming a lump of iron or of granite is precisely the same as that of the motion of these same atoms racing alone down space.

308—332: though atoms are in constant motion, yet the whole universe appears to be at rest, because they are far beneath the ken of our senses: nay visible things often when seen from a distance seem to be at rest; as a flock of sheep feeding; or as an army of foot and horse, if looked down upon from a height. 309 *sint in motu*: an unusual rhythm; but *in motu* is to be taken metrically as one word; so always *inter se, inter nos* and the like. 310 *Summa...summa*: the play on words which he so loves. 311 *dat motus*=movetur: see n. to I 819: either the sun or moon or the clouds or any thing moving on the earth is an instance of such partial motion. 312 *infra* is here the adv.: *iacet infra longe a n. s.*: IV 112 the prepos. is used with the same force: *primordia . . Sunt infra nostros sensus.* 313 *Primorum*: IV 186 *e primis facta minutis*: see n. to I 55. 314 *iam*: it has precisely the same force I 601: *quod nostri cernere sensus Iam nequeunt*: where see n.: and 613 and 625. *surpere*: Horace and Plautus also use this contracted form. 316 *diducta* i.e. from us. 318 *reptant* well expresses the slow regular advance of sheep as they are feeding. 319 comp. V 461 *gemmantis rore per herbas*; culex 69 *gemmantis . . per herbas*; but there of flowers. 320 *coruscant*: Iuven. XII 6 uses it actively, *frontemque coruscat*; Quintil. inst. VIII 3 21 *caput opponis cum eo coruscans* (Halm, *conificans* mss.). 323 foll. comp. 40 foll. 324 *bel. sim. ci.*: see n. to 41. 324 foll. Lucr. had more than one passage of Homer in his mind: Od. ξ 267 πλῆτο δὲ πᾶν πεδίον πεζῶν τε καὶ ἵππων Χαλκοῦ τε στεροπῆς, Il. T 362 Αἴγλη δ' οὐρανὸν ἷκε, γέλασσε δὲ πᾶσα περὶ χθὼν Χαλκοῦ ὑπὸ στεροπῆς· ὑπὸ δὲ κτύπος ὤρνυτο ποσσὶν Ἀνδρῶν, and B 457 and 465. 326 *Aere ren.*: Virg. geor. II 281 *fluctuat omnis Aere renidenti tellus.* *supter* appears to be an adv.; for it would be harsh to join it with *pedibus*; and so I presume Lucr. understood ὑπό in Il. B 465 and T 363. 328 *sid. mun.*: see n. to I 788. 332 *consist. ful.* i.e. videntur consistere velut fulgor: comp. 322. Martha, p. 288, well remarks that 'such

comparisons are not mere embellishments: they are facts, examples, to illustrate the law: they place before the eyes what otherwise the mind would have difficulty in seizing'.

333—380: know too that these first-beginnings are of many different shapes: thus no two men or other animals are quite alike; thus a cow knows its calf among all other calves; thus kids and lambs run each to its own mother; thus every grain of corn, every shell is distinct. 333 *cunct. ex. rer.* = primordia rerum, the *cunctarum* being equivalent to *prima*. 335 *multigenis* appears to be a ἅπαξ λεγόμ.: it must come from *multigena*, as the *omnigenum* of Virgil from *omnigena*: see n. to I 683: Lucr. has *alienigena terrigena Graiiugena Troiiugena*; but *caecigeni.* 336 337 recur 723 724, and partially 692 694. 336 *Non quo.. sint, Sed quia non constant*: this is the regular constr.: *non quo, non quod, non quia, non quin*, followed by *sed quia, sed quod*, or *sed* or *verum* alone, take a subj. in the first, an indic. in the 2nd clause: VI 71 *non quo violari summa deum vis Possit.. Sed quia tute.. Constitues.. Nec..adibis*; Cic. de orat. II 305 *non quo libenter male audiam, sed quia causam non libenter relinquo*; so Tusc. disp. II 56 *non quod, sed quia*; Sall. Cat. 35 3 *non quia, sed quod*; Livy XXXVIII 33 11 *non quia salvos vellet, sed quia perire causa indicta nolebat*; Cic. ad Att. VII 26 2 *non quin, sed quia*: Ser. Sulpic. ap. Cic. ad fam. IV 5 1 *non quo ea te fugere existimem, sed quod forsitan dolore impeditus minus ea perspicias*, the *perspicias* depends on *forsitan*. Lachmann's *constent* seems therefore not easy to defend. [However Cic. epist. IV 7 1 mss. give *sed quod iudicem*, editors *iudico.*] With *non quia* the best writers sometimes have an indic. in the first clause: 3 *Non quia vexari quemquamst iucunda voluptas*: so Cic. pro Planc. 78; Livy X 41 12. *parum multa* recurs several times: it and *parum saepe* are similarly used by Cicero: instead of being few, the atoms of each shape are infinite in number, as he soon after proves. 340 *prorsum* seems best taken with *omnia*; as VI 528 *omnia, prorsum Omnia*; but it may be taken with *non* in the sense of *prorsum non*: see n. to I 748; though the other sense agrees best with *quaedam* of 380. 341 *filo*: *filum* is properly thickness, as IV 88 *suptili praedita filo*; hence size as here, and V 572, 581, 589; see Lach. to V 571. 342 *Praeter eat*: IV 388 *ea praeter creditur ire*: let them pass before you in review, and then 347 *sumere perge* out of the number any of them for inspection, and you will find they differ. *Praeter eat*, which I have divided for emphasis, was suggested to me by Hor. sat. I 4 25 *quemvis media elige turba, Aut ob avaritiam aut misera ambitione laborat.* [And so *transeo* is used by Sen. rhet. controv. I 4 12 *quam otiosi, quam securi adulteri transierunt praeter oculos meos.*] The metaph is perhaps from the *sollemnis transvectio* of the knights for inspection: comp. Ov. trist. II 89 *vitamque meam moresque probabas Illo, quem dederas, praetereuntis equo*; 541 *cum te delicta notantem Praeterii totiens.. eques.* *mutaeque natantes*: see

n. to I 258. 343 Plaut. rud. 942 *sine squamoso pecu.* 344 comp. Aen. VII 32; and Ov. met. II 252. As *laeto* in the old writers (see Forc.) signifies to make glad, it seems best to take *laetantia* to mean making glad; it may however be synon. with *laeta*; as Cic. de nat. deor. I 116 *quae sua voluptate laetans.* 346 comp. 145. 347 *generatim* = 372 *Quique suo genere.* [*sumere* = eligere: see Lucil. XIX 10 *Sume diem qui est visu' tibi pulcherrimus unus,* and Nonius s. v.] 348 *tamen* of course refers to the *quidvis*: comp. 371 *quodvis . . tamen.* 351 *cluere* = esse. 352 *delubra* seems here to have its primary sense, the inner part of the temple where the statue of the god was, and the *arae* therefore to be within the temple. 353 *Tur. ar.*: Aen. IV 453 *turicremis cum dona imponeret aris.* 354 comp. Aen. IX 414 *vomens calidum de pectore flumen.* 355—359 imitated by Ov. fasti IV 459 460, 463 464, 481: *Ut vitulo mugit sua mater ab ubere rapto Et quaerit fetus per nemus omne suos...Inde puellaris nacta est vestigia plantae Et pressam noto pondere vidit humum*: (this v. shews that Ovid read *noscit* in Lucr.): *Quacumque ingreditur miseris loca cuncta querellis Implet.* 359 *absistens*: the cow searches for her calf, cannot find it, desists from the search, stands and lows piteously, returns to her stall, goes out again, does the same and returns once more: this, which is so near the ms. reading, seems to me to suit the sense exactly. *revisit Ad*: V 636 *ad hanc quia signa revisunt*; VI 1239 *visere ad aegros*: the constr. is common in the older writers. 360 *perfixa* seems a word peculiar to Lucr.: comp. III 305; VI 392. 361 foll. seems to have suggested to Virgil geor. III 520 *Non umbrae* cet. 362 *illa*, emphatic in a good sense; as I 82 *illa Religio*, in a bad. *sum. lab. ripis*: Hor. epod. 2 25 *Labuntur altis interim ripis aquae*; od. I 2 18 *vagus et sinistra Labitur ripa*; Ovid am. II 17 31 *Sed neque diversi ripa labuntur eadem.* 363 *subitam* is the participle: perhaps it is regular and *subeo curam* is said as *subeo dolorem* in Cicero and the like; but I think it better to take it to be *curam quae subiit.* This use of the pass. partic. is common in Latin: *potus pransus cenatus iuratus cretus concretus placitus nuptus adultus* and many such are found in all periods of the language; *senectus* is used by Lucr. more than once; see n. to III 772. But there are other words which have a more immediate bearing on our passage: Lucr. himself in VI 491 has *inpensa* for 'quae inpendent' and Sen. Herc. Oet. 1592 says *impensum ferrum*; Prisc. inst. IX 48 foll. gives a list of such words: of compounds of *eo* we find Laevius saying *miserulo obito*; Claud. Quadr. *multis utrimque interitis*; then *praeteritus* for 'qui praeteriit' was common at all times: [Lucil. XXVI 49 *flacitam familiam*;] Paulus Festi p. 28 'ad *exitam* aetatem, ad ultimam aetatem', where *exitam* seems to be 'quae exiit': similarly Caelius ap. Prisc. has *custodibus discessis*; and the young Cicero, ad fam. XVI 21 2, writes to Tiro (patre non probante perhaps) *cum omnia mea causa velles mihi successa*:

Vitruv. v 8 *scaenam recessiorem*: *occasus sol* is likewise not unfrequent. Some of these expressions were always in use, some became archaic and homely; but Lucr. was no ways averse to the latter kind: see n. to 156 *Officiuntur*. On the analogy then of *obitus interitus exitus praeteritus, discessus successus recessior*, and Plautus' *puppis pereunda est probe*, Lucr. may surely have said *subitam curam* for 'curam quae subiit'. 365 *derivare animum*: it would not be easy perhaps to find an exact parallel to this expression. *cur. lev.*: Hor. sat. II 5 99 *curaque levarit*; Ov. met. v 500 *curaque levata . . eris.* 369 *Balantum pecudes* after Ennius ann. 192: VI 1132 *pigris balantibus*: comp. *corpora pennipotentum*: *squamigerum pecudes* and the like. 370 *fere*: see n. to I 14 *ferae* (*fere*). 371 comp. 347: here also *tamen* answers to *quodvis*; for *quodvis* is emphatic as in Cic. de inv. I 100 *nam ex iis rebus* . . quaevis *amplificationes et indignationes nasci possunt*; Caes. bel. Gall. IV 2 *ad* quemvis *numerum ephippiatorum equitum quamvis pauci adire audent.* Corn of whatever kind you choose to take you will yet find not to be all alike: *non tamen* is used exactly as in v 920 *quia quae de terris nunc quoque abundant Herbarum genere ac fruges arbustaque laeta Non tamen inter se possunt complexa teneri*: comp. too IV 952 *poplitesque cubanti Saepe tamen summittuntur.* 372 *Quique* is abl. of course: see Lach. and Madv. de fin. v 46: and comp. Livy III 22 6 *equites item suae cuique parti...collocat*; XXIV 3 5 *separatimque greges sui cuiusque generis*; XXV 17 5 *motibusque armorum et corporum suae cuique genti assuetis*; Plaut. Poen. v 4 5 *copia venustatum in suo quique* (*quicque* A) *sita munde.* 375 *mollibus* of the waves falling gently on the shore; not a general epithet of water, as I 281 *mollis aquae natura*: comp. Aen. IX 817 *ac mollibus extulit undis.* 377 *Quare* cet. proves, if proof were wanting, that *Praeterea* in 242 cannot be right: it draws the conclusion from all the instances given above beginning with 342; and it would be ludicrous to include what precedes, that is, to assert 'therefore it follows that atoms must have different shapes, because I have declared that they must not all have the same shapes'.

381—397: thus the fire of lightning can pass where earthly fire cannot, because it is formed of finer atoms: for like reasons light passes through horn, rain does not; wine runs easily, oil slowly through a strainer, because the elements of oil are larger or more hooked, and so cannot separate so readily. 381 *exsolvere*: v 773 *resolvi* is also used metaphorically; and perhaps VI 46 where mss. have *dissolui.* 383 *fuat* recurs IV 637 and is found in Virgil, and often in Plautus. 385 *magis* may belong to *Suptilem*; but it seems better to take it with *parvis*: comp. VI 225 *Hunc tibi subtilem cum primis ignibus ignem Constituit natura minutis mobilibusque Corporibus.* *figuris* are here the atoms themselves; as 679 *varias cohibere figuras*; also 682, 685, 817, III 190, 246, VI 770, 776: see n. to I 55 foll.: so Democritus gave the name of

ἰδέαι or εἴδη, which Aristotle interprets by σχήματα, sometimes to the shapes of atoms, sometimes to the atoms themselves. 388 *cornum*, a form found in Varro Ovid Gellius and others: [see Ussing to Amph. 337.] 391 *quamvis*=quantumvis. 394 *perque pl.*: so *perplexis figuris* and *inplexis principiis*: their being *hamata* makes them also *perplicata*. 397 *cuiusque* seems to me to be used to increase the antithesis: the several elements of any oil in relation to the several openings of any particular strainer: though Bruno's conj. is ingenious.

398—407: honey and milk are pleasant to the taste, wormwood and the like nauseous; the former therefore consist of smooth, the latter of jagged atoms which tear a way into the body. 401 *Centauri*: IV 125 and Virg. geor. IV 270 have the form *centaurea*; the mss. of Pliny who often uses the word appear to give *centaurion* or *centaurium* for the nomin.: the latter is the form used here: it appears not to be extant in Greek. *absinthi*, *Aegi*, *conchyli* are similar genitives of Greek words in Lucr. *pertorquent* appears not to be found elsewhere: the nomin. is *natura* twice repeated: this is less harsh than III 558: Virg. geor. II 246 *At sapor...ora Tristia temptantum sensu torquebit amaro* or *amaror*: par. lost x 569 *With hatefullest disrelish writhed their jaws.* 402 *rutundis* AB here and elsewhere. 404 *quaĕ amara*: 617 *quĭ in oras*, IV 1061 *Nam sĭ abest*, V 7 *Nam sĭ ut*, 74 *quĭ in orbi*, VI 716 *quĭ etesiae*, 796 *sĭ odoratast*; so with monosyllables ending in *m*, 681 *sunt cum odore*, III 394 *Et quam in*, 1082 *Sed dum abest*, VI 276 *cum eo*: comp. Virgil's *An qui amant, te amice, o Alexi*; Horace's *Si me amas, cocto num adest*; Catullus' *tĕ in omnibus, dĭ ament*; *sĭ adire* of the catalecta; Lucilius' *quŏ eam*: this prosody is exceedingly common in the old scenic poets, but there the non-elision takes place always, or nearly always, in the arsis of the foot. [Lucilius in his iambics and trochees has also the old scenic usage: XXVIII 19 *Lucili, sĭ in amore*; XXVI 85 *quam in album*; XXVIII 5 *igni cum et aqua.*] With this passage and with IV 615 foll. it would be worth while to compare Theophrastus de caus. plant. VI 6; de sensu et sensil. 65 66 67; all quoted by Mullach Democr. p. 217 foll. where it is explained at length out of what kind of atoms the flavours γλυκύς, στρυφνός, ὀξύς, δριμύς, ἁλμυρός, πικρός are severally formed according to Democritus.

408—443: also what is pleasing or offensive to the other senses, to the hearing smell sight, must be formed of elements more or less smooth or rough respectively: again some bitter flavours have elements, not hooked, but slightly prominent: those of fire and cold are jagged, but in different ways as shewn by touch, every bodily sensation being a kind of touch. 408 *Omnia postr.*: passing from taste to the other senses. *tactu* is here the dat. of *tactus*; and is quite synon. with *sensibus*, as it implies in its general meaning every way in which you can *tangere et tangi*: thus *tangere* I 643 is said of hearing, II 403 of taste, IV 674 of

smell. Virgil ends geor. III 416 with *aut mala tactu*: but *tactu* there appears to be the supine. 412 *musaea*: this adj. appears peculiar to Lucr. at least in the senses in which he employs it: here it=musica; in I and IV it=simply *musarum*. *mele*: 505 *cycnea mele*; V 334 *modo organici melicos peperere sonores.* This v. is almost made up of Greek words; 505 *Et cycnea mele Phoeboeaque daedala chordis*, even more so: in both places he wishes to express sweet sounds, so far supporting Quintil. XII 10 33, 'itaque tanto est sermo Graecus Latino iucundior ut nostri poetae, quoties dulce carmen esse voluerint, illorum id nominibus exornent'. Juv. III 68 *Et ceromatico fert niceteria collo* seems to parody the practice, which Virgil and Ovid in regard to proper names and rhythms are so fond of; but which in the age of Quintilian and Juvenal was carried to an absurd extent. 413 *figurant*: IV 552 *Formaturaque labrorum pro parte figurat*, i.e. shapes the articulate words: here I presume putting the tunes into shape means to execute them. 416 *Et cum* and 420 *Et qui*: see n. to I 280. *croco Cilici*: culex 399 *Cilici crocus editus arvo. perfusa* in a liquid state, as described by Seneca Pliny and Martial. 419 *oculos* cet.: Tac. hist. III 31 *saevissima Vitellii vox qua se* (*ipsa enim verba referam*) pavisse oculos *spectata inimici morte iactavit*; Sen. epist. 58 25 *oculos...ut dici solet, pascit.* Terence has *oculos pascere*, Plautus *oculis epulas dare*, Martial *oculis comedit* and *oculis devorantibus*: comp. I 36. 421 it is not easy to see how mere ugliness or hideousness of aspect implies roughness in the atoms: one could conceive a very ugly thing having a soothing effect, if applied to the eyes; while bright and beautiful objects may often *conpungere aciem.* 423 *principiali lev.* i.e. levore principiorum: comp. 425 *materiae squalore.* 426 *quae iam nec*: the force of *iam* is clear enough; which, when you come to them, you can no longer call either smooth etc.: comp. Cic. de fin. V 14 *praetereo multos, in his...Hieronymum, quem iam cur Peripateticum appellem nescio*; Pollio ap. Cic. ad fam. X 32 3 *illa vero iam ne Caesaris quidem exemplo*; Cic. Brutus 70 *iam tamen quae non dubites pulchra dicere*; Livy V 14 3 *non prodigia, sed iam eventus*; Lucil. lib. inc. 13 Muell. *tertia iam postremaque nostra*: comp. also 313 *ubi ipsa Cernere iam nequeas*, and I 601, 613 and 625. It cannot have the meaning it has just after in 430, 431, 440, where particular instances are specified. 428 *utqui*: see n. to I 755. 429 *Titillare...sensus*: Cic. de nat. deor. I 113 *has leviores dicis voluptates quibus quasi titillatio* (*Epicuri enim hoc verbum est*) *adhibetur sensibus*; de fin. I 39 *si ea sola voluptas esset quae quasi titillaret sensus*; and other passages: Epicurus' own word γαργαλίζειν is often mentioned: he applied it to the slighter bodily pleasures. 430 *Faecula*: Hor. sat. II 8 9 *faecula Coa*: the *fecula* of AB and Lach. cannot be from Lucr. though before the end of the first century it became common to put *e* for *ae* in many words, *maereo aerumna paenitet* cet.: V 1141 A has *fecem.* 433 *tactus uterque*=tactus

utriusque: Hor. od. II 17 8 *ille dies utramque Ducet ruinam*; Livy XXXV 46 7 *nihil utilius Graeciae civitatibus esse quam utramque complecti amicitiam; ita enim ab utriusque iniuria tutae*; Cic. ad Att. XV 1 3 *se autem utraque arma metuere*; Sueton. I 6 *de eius ac patris sui utraque origine sic refert*; [Tacit. hist. I 50 *utrasque impias preces, utraque detestanda vota.*] 434 this point is put with emphasis to shew the vast importance of touch; for as nothing can *tangere et tangi sine corpore*, so nothing can *sine tactu sentire*: all the senses are but different forms of touch: he then enumerates the different ways in which the body can feel; either something enters from without, and gives pleasure or pain; or something takes place in the body, and gives pleasure or pain; or thirdly the atoms in the body itself, before quiescent, are troubled by some collision and so disturb the body's feeling, as for instance when you strike any part of the body. 438 *Aut* from the attraction probably of *aut* in 437: it should be *vel*, to answer *vel* of 435 and 436. *turbant* neut.: see n. to 126. *corpore in ipso*=merely *intus in corpore*: see n. to IV 736 *aere in ipso.*

444—477: again things hard and dense, stones metals and the like, have hooked and branching particles; fluids have them smoothed and round: things again which do not cohere, but yet are pungent, smoke mist flame, have sharp, but not tangled elements: sea-water has particles round and smooth mixed with others round but rough which give it its saltness; and these latter by filtering you may separate from the former. 445 foll. *hamatis* cet.: Cic. acad. pr. II 121 *ille qui asperis et levibus et hamatis uncinatisque corporibus concreta haec esse dicat*: the *uncinatis*= 427 *flexis mucronibus unca.* Newton optics p. 251 Horsl. 'the parts of all homogeneal hard bodies which fully touch one another, stick together very strongly. And for explaining how this may be some have invented hooked atoms, which is begging the question'. 448 *ictus contemnere sueta*: Virg. geor. II 360 *contemnere ventos Adsuescant*: for the sense comp. Pliny XXXVII 57 *incudibus hi* (adamantes) *deprehenduntur ita respuentes ictus ut ferrum utrimque dissultet, incudes ipsae etiam dissiliant; quippe duritia inenarrabilis est...unde et nomen interpretatione Graeca indomita vis accepit.* 449 *silices*: see n. to I 571: these blocks paving their streets and roads would always be present to the eyes and minds of Romans. *robora*: see n. to I 882. 450 *Aera, claustris, restantia* are all vague words; so that their joint meaning must be somewhat doubtful: *Aera* I take to be the bronze bars or bolts of a gate; *claustra* the staples or metal boxes into which the bolts went to fasten the gate; apparently the strict meaning of the word: 'massy staples And corresponsive and fulfilling bolts': but German. 196 197, compared with the original of Aratus 192 193, is obscure to me both as to reading and sense. *restantia* then=resistentia, as I 110: *rest. cl.* meaning struggling with, refusing to part from: [Baehrens in Rh. Mus. XXIX p. 360

seems rightly to amend Lucil. XXIX 47 *Caede ostium, Gnato, urge!*—restat. —*periimus.* (*urguent, instant* Muell.)] Yet *claustris* might be the modal abl.: most of the editors seem to take *aera* for the *cardo*; but as the ancient *cardo* had nothing in common with the modern hinge, *claustris* must then apparently mean the socket of the door-flap which moved about the *aera* or pivot of the *postis*: this it can scarcely do. In ordinary doors the *aera* would be the *pessuli*, one of which went into a *claustrum* in the upper limen or lintel, the other into one in the lower. Hence each door-flap or *valva* had two, one above one below: Plaut. aulul. I 2 25 *occlude sis Fores ambobus pessulis*: the *sera* being the wooden bar which went across the whole door into a hole in each *postis*. 452 *flŭvido*: 464 *flūvida*, 466 *flūvidus.* *lĭquida*: so I 349, III 427; IV 1259 *lĭquidis et līquida crassis*; where see note: *līquida* Laevius frag. 7 Mueller; even Phaedrus has *līquidus.* I 453 *līquor aquai*; the only case where the subst. is long, though that is the regular quantity of the verb. 454 *glomeramina*: this word, almost peculiar to Lucr., V 726 means the ball of the moon; II 686 atoms of different shapes meet *glomeramen in unum*: from the context *glomeramina* would seem in our passage to mean *globosa primordia*, the round particles of any liquid; but if so, this sense is in strange contradiction to the meaning which Lucr. elsewhere gives to it: if it means the drops into which a liquid sometimes forms, that would only apply to a few cases in which a liquid so disperses itself: the words *retinentur inter se* are ambiguous, as they may refer either to a composite body keeping together, or to the separate atoms holding themselves in union. 455 *proclive*: see Cic. de fin. V 84 *proclivi currit oratio*, and Madvig there who shews that *proclivi* and *proclive* are the same in meaning and used adverbially: he compares *facile* and *sublime*, and refers to Gellius X 24 who says the ancients used *proclive* and *proclivi* indifferently: Cic. Tusc. disp. IV 42 *quia sunt in lubrico incitataque semel proclivi labuntur.* 460 *vesca*: see n. to I 326: *pen. ves.* to enter in with a biting power well suits the context. 462 *sedatum* I keep: a thing, like smoke for instance, enters the eyes and bites them; but its atoms disperse at once, and thus the sense is able to quell and allay them: comp. the use of *sedare* in 956: the remaining motions can often *Vincere et ingentis plagae sedare tumultus*: comp. too the *longa dies sedavit vulnera mentis* of Ovid ex Ponto IV 11 19; and the uses of *sedat* in Pliny XX 211; 212; and XXIX 133: [comp. too Cic. Cat. III 6 *tum interventu Pomptini atque Flacci pugna quae erat commissa sedatur*: see too Nizolius: also Amm. Marc. XIV 6 23 *et quoniam apud eos ut in capite mundi morborum acerbitates celsius dominantur, ad quos vel sedandos omnis professio medendi torpescit* cet.] The ms. reading is thus unaltered, while the corrections of Lach. Bern. and others are very violent. 463 *acutis*: so that they can *pungere*, but not *haerere.* 465 *Sudor maris* is simply the salt water

of the sea, and has nothing in common with v 487, where *salsus sudor* is literally the sweat of the earth; or with what is there quoted from Empedocles. [*habeto*: see Seyffert, Lael. p. 48, on *sic habetote.*] 467 *doloris* is the acc. plur.: it is certain that *doloris laboris maioris* and the like were often, if not generally, written by Lucr. and Virgil: see 509 *melioris* and v 591, and Wagner orthogr. Verg. p. 404: *creant doloris* = 470 *laedere sensus.* 469 *Scilicet esse*: see n. to I 210 *Esse videlicet.* 472 *Neptuni*: he takes himself the licence here, which 652 (655) he somewhat contemptuously concedes to others. [474 for arrangement of words comp. VI 140; Plaut. asin. 230 and Ussing there.] 475 *mansuescat*: i.e. by losing the *aspera semina.* 476 *viri*: *virus* is used for the brine of the sea I 719, v 269, repeated VI 635, *Percolatur enim virus*; Manil. v 684 *ponti secernere virus.*

478—521: hence it appears that the number of different shapes in atoms is finite: some atoms must be infinitely large, if you have an infinite variety of shapes; for say certain atoms consist of three parts or four parts: their permutations will only give a certain number of shapes; go on increasing the number of parts, the shapes after every change of position will still be only finite in number: hence to get an infinite number of shapes, some atoms must be infinitely large; which is impossible: again were the shapes infinite, what is now best in colour smell flavour sound would be far surpassed; as well as what is worst: but as it is there is a limit to all this; there is a limit too to the heat and cold of the year.—This was another point in which Epicurus differed from Democritus and Leucippus who according to Arist. de gen. et corr. I 1 p. 314 a 22 taught that their atoms ἄπειρα καὶ τὸ πλῆθος εἶναι καὶ τὰς μορφάς: p. 315 b 9 foll. he gives their reasons for this. Philoponus in his comment p. 3 b on the words of Aristotle just quoted records that according to Alexander of Aphrodisias the epicureans on this point οὐκέτι συνεφώνησαν Δημοκρίτῳ: this Epicurus himself in Diog. x 42 distinctly confirms, καὶ καθ' ἑκάστην δὲ σχηματισιν ἁπλῶς ἄπειροί εἰσιν ἄτομοι, ταῖς δὲ διαφοραῖς οὐκ ἁπλῶς ἄπειροι ἀλλὰ μόνον ἀπερίληπτοι: the number of shapes is not infinite, only inconceivably great: this careful limitation is added no doubt with reference to Democritus. Lucr. simply states and argues that the number is finite, without deciding whether it is large or small. 479 *Ex hoc* cet.: it derives its proof from what has been said, because though there is so much difference in things in regard to hardness softness, smoothness roughness, and the like, yet these differences are only finite: see 500 foll. 480 = 514 *finitis differre figuris.* 481 *rursum iam* refers to I 615: it will once more follow, though it was there proved to be impossible: see below 499 *supra quod iam* cet. 483 my correction is I think very simple: *in eodem* i.e. semine: then defining more strictly, 'I mean in the one small size of any single atom': because his argument obliges him to begin with the

smaller and go on to the larger: the *eodem* would infallibly be changed into *eadem* by the context: in Lucil. XXIX 79, if Mueller is right in reading *Eodem una* (*uno* mss.) *hic modo*, the case is exactly parallel. As Lach. says, *eadem una* would hardly have the meaning of *una et eadem*. In the Journ. of phil. IV p. 123 124 I argued for *Namque eadem minima* (eadem in una, in eadem una); but my present reading is much simpler. 484, 487 and 490 *corporis* is of course the atom: see n. to I 600 *Corporis illius.* Lucr. seldom has to speak of a single atom: when he does mention one, he has hardly any word for it but *corpus* as here. 485 *minimis e partibus*: this has been fully explained I 599 foll.: these *minimae partes*, which could not exist alone and had no distinctive qualities, Lucr. seems to have regarded as each perfectly identical; so that the atom took its shape and character solely from the mode of juxta-position in which these existed from everlasting in the atom; and three he seems to have thought the very smallest number that could compose one of his atoms. 490 *Formai speciem*: comp. IV 69 *formai figuram.* 491 *Quod superest*: see n. to I 50. 492 *Addendum partis*: see n. to I 111: the permutations will soon come to an end and to increase the shapes new parts must be added. 494 *etiam*, once again, still, which the comic poets shew to have been an idiomatical use: Cic. Verr. III 175 *dic, dic etiam clarius.* 496 *Subsequitur*, at once follows upon. 498 *maximitate*: see n. to I 653. 499 *supra* i.e. I 615 foll. With what precedes comp. Epicurus himself in Diog. X 56 πᾶν δὲ μέγεθος ὑπάρχον οὔτε χρήσιμόν ἐστι πρὸς τὰς τῶν ποιοτήτων διαφοράς, ἀφῖχθαί τε μέλλει καὶ πρὸς ἡμᾶς ὁρατὴ ἄτομος...πρὸς δὲ τούτοις οὐ δεῖ νομίζειν ἐν τῷ ὡρισμένῳ σώματι ἀπείρους ὄγκους εἶναι οὐδ' ὁπηλικουσοῦν.

500 *Meliboea*: Lucr. tells us that this was the Thessalian town: it lay on the shore, between Ossa and Pelion: Aen. V 251 *Purpura Maeandro duplici Meliboea cucurrit*; where Conington says '*Meliboeus* is formed from it as an adj. by poetical licence, as III 401 *ducis Meliboei*'. 501 *Thessalico conc. col.*: see n. to I 474. Philostr. heroica 744 proves that the Thessalians were known for dyeing with purple from the κόχλος. *tacta*: Lucr. uses *contingo* and *contactus* in the same sense. Oudendorp on Lucan X 491 among several false instances quotes II 536 *tetigit sanguis pollutos Caesaris enses.* 502 *ridenti*: IV 1125 *pulchra in pedibus Sicyonia rident.* 504 *iacerent* of course is continued to this verse: Lucr. assumes according to wont that where the varieties are infinite there must be infinitely good and infinitely bad in what they produce. 505 Lamb. seems to be right in taking *Phoebea* to imply tunes played on the φόρμιγξ, the instrument of Phoebus. *daedala chordis* appears to be the same as 412 *per chordas organici quae...figurant*: both phrases seem to imply the giving expression on the strings to all the varied forms of the music. 509 *in melioris* depends in grammar on *cedere retro*, in

sense on *progredi* or the like. 513 and 518 *summam* i.e. the whole range within which they move. 515 Lachmann's *iter usque* is tame and I should like to read *hiemum usque*; yet with Lach. I think *Finitumst* and *remensumst* harsh without a subject; though scarcely so harsh perhaps as IV 813 *semotum fuerit longeque remotum.* 516 *remensus* is more than once passive in Virgil. 517 *Omnis* cet. is rightly explained by N. P. Howard Journal of phil. I p. 126. The fires of midsummer and the frosts of winter are the two extremes, between which lies every degree of *calor, frigus* and *medii tepores.* 518 *Interutrasque* is to be kept here, and V 472 476 839 VI 362 1062, as I suggested in notes 1 of my second edition, comparing the adverbs *alias alteras* or else *foras*: Buecheler Lat. decl. p. 32 cites Nonius p. 183 for *utrasque*, which in Cassius Hemina signifies 'both times', in Caecilius 'on both sides'. The origin of these forms is nowise clear, as is the case with many other adverbs in Latin. 520 *mucroni*: the metaphor must be from the *mucro* or point of the *stilus* setting a mark at each end of any length you wish to note: on the *i* of the abl. see n. to I 978. 521 *infesta*: Mela I 4 *mediam aestus infestat, frigus ultimas*; III 44 *tellus infesta frigoribus.*

522—568: the number of shapes being finite, the number of atoms of each shape is infinite, since it was proved in the first book that the sum of matter was infinite: if you say some animals are more scarce than would be the case, if the atoms of which they were made were infinite, I answer these animals may be very numerous in remote regions; but even if but one thing of its kind existed in the whole world, this would imply an infinite sum of atoms; else how could these have met and united in the boundless ocean of matter? the first-beginnings therefore of every shape and kind are infinite in number. 522 foll. see Epicurus cited to 478 foll. who precisely agrees with Lucr. 525 *cluere* = esse. *etenim* cet. for no finite number multiplied by any finite number however large can produce an infinite sum. And as Epicurus and Lucr. conceived all infinites to be equal, the atoms of each shape must to them have been equal to the sum of all the atoms of all shapes; which seems absurd; but this opinion they shared with all the ancients, and moderns till comparatively recent times: Philoponus, l. l. to the last section, has a curious argument to shew that Democritus holding the atoms of each shape to be infinite must have held that there was τοῦ ἀπείρου ἀπειρότερόν τι, and that the epicureans teaching that the number in each shape was infinite must have believed the same: this to him seemed an absurdity; and it must have puzzled Epicurus and Lucr. as well. Newton cited to I 622 clears up the mystery. 528 *probavi* I 1008—1051: Lach. goes sadly astray, μέγας μεγαλωστί. 529 *Versibus* is thus nakedly put I 416 *Quam tibi de quavis una re versibus* cet.; and *dictis* with the same sense more than once. 530 *Ex infinito*, i.e.

tempore, not *spatio*, apparently: see n. to I 1001: but here it is not quite certain. 531 *protelo*: IV 190 *Et quasi protelo stimulatur fulgere fulgur*: from the passages of Lucilius and others quoted by Forc. the word appears to denote a number of draught-oxen yoked one in front of the other and advancing by even successive pulls: hence it well expresses the effect produced by the continuous succession of blows of atoms. 532 *Nam quod* cet.: an apparent objection to some shapes having an infinite number of atoms, but only apparent: the *quod vides* is like the familiar *quod scribis* in Cicero, to introduce his own answer or opinion: see n. to IV 885. 535 *numerum*: so as to bring it up to an average: comp. *quingentorum numerum explebant* and similar expressions so common in Livy. 537 *anguimanus* recurs V 1303 as the acc. plur. fem.: Lach. quotes Priscian to shew that *centimanus unimanus* and the like are declined like *manus* and observes that Lucr. is the only writer of authority who uses any of these words except in the nom. and acc. sing.: Cic. de nat. deor. II 122 *manus etiam data elephanto est.* 538 I know no other mention of this fable. 543 *orbi*: see n. to I 978. 546 *quod superest*: see 491 and n. to I 50. 547 *sumam hoc quoque uti* seems to me not only near the ms. reading, but to give the sense needed: were I to *assume* this further, that the elements were finite, my argument would be proved by the absurdity of the conclusion: euphony has determined the position of the words, as *Quippe etenim hoc quoque uti* would have had a very harsh sound: comp. III 293 *fit qui* and n. there, and IV 752 *Nunc igitur docui quoniam*: for *ut* thus placed comp. IV 638 *Extetque ut serpens*; V 871 *nec ipsa Sponte sua possent ut vivere*; VI 784 *capitis faciant ut saepe dolores*; 887 *calidus queat ut fieri fons*; 1064 *Inpellant ut eam*; 1214 *neque se possent cognoscere ut ipsi*; Hor. sat. I 4 105; Ov. ex Ponto II 9 80; III 3 95 *faveas quin his* (mss.: *quin his faveas* vulgo). 550 *turba aliena*, of atoms different in kind.

553 [*disiect.*: used by Amm. Marc.: see Herz in Hermes VIII p. 269.] *guberna* occurs in Lucilius too ap. Nonium p. 490. 555 *fl. apl.*: Cic. Arat. frag. XXII *Navibus absumptis fluitantia quaerere aplustra.* *aplustre*, in plur. *aplustra* or *aplustria*, was a fan-like erection of planks rising above the poop: Lucan III 585 *dum pugnat ab alta Puppe Tagus Graiumque audax aplustre retentat.* [On *aplustra* see Mayor to Juv. X 135.] 559 comp. V 1004 *Nec poterat quemquam placidi pellacia ponti Subdola pellicere in fraudem ridentibus undis*; Virgil has the adj. *pellax*: these two appear to be the only good writers who use the words. 561 *aevom*: so III 589 *omnem...per aevom*; Plautus has *vitalem aevum.* 567 *Esse igitur* cet.: he assumes now that he has proved the question stated 522 foll.; the whole paragraph therefore stands in closest connexion one part with the other. 568 *palam est* = apertum est, is found also in Cicero, and Livy XXXI 14 8 and Pliny XXIX 11: Plautus has *res palam est*; *rem palam esse*; Terence *palam*

est; [and Bruttedius Niger ap. Sen. rhet. suas. VI 21 *hoc certe publicum beneficium palam erat*:] comp. *palamfacere*, and III 355 *ipsa palam quod res dedit ac docuit nos*: so V 1157 *id fore clam*. *un. om. sup.* i.e. unde omnia primordia, quae suppeditantur, suppeditantur: but perhaps it is simplest to take it for *omnes res suppeditantur*: see n. to I 230; and for the sense comp. II 589—597.

569—580: thus production and destruction alternately prevail, their elements ever waging equal war: no day passes without some dying, some being born. 569 *itaque*: for its place in the sentence see n. to I 419 on *igitur*. *itaque*: because the atoms of each shape being infinite, those which tend to preserve or destroy anything are alike infinite. 571 *rer. gen. auct. mot.* i.e. motus principiorum quae generant et augent res. *auctifici* is a ἅπαξ λεγόμ. 574 *contractum...bellum*: IV 968 *contractum cum ventis degere bellum*. 575 *vitalia* (primordia) *rerum*: comp. VI 771 *Multa, cibo quae sunt, vitalia*. 576 *vagor*: Festus p. 375 quotes this passage and one of Ennius as authority for this form. 577 *visentis* is nom. plur.: see n. to I 808 *animantis*. 578 *Every minute dies a man, Every minute one is born*. Here he has been content perhaps to sacrifice philosophical to poetical distinctness: what as an epicurean he means to say is that in the universe of things death and destruction are evenly balanced by life and production. Wishing to illustrate this doctrine, he has drawn his images from the apparent equality that there is in our world, so long as things continue as they are. But he elsewhere teaches, as his system required him to do, that our world came into being only yesterday, and sooner or later must be destroyed in an instant with all that is in it. What becomes then of this balance so far as we are concerned? he no doubt felt that its ruins would go to construct something else; but that he has not said. This balance of the whole universe, says the epicurean in Cic. de nat. deor. I 50 *ἰσονομίαν appellat Epicurus, id est aequabilem tributionem...et, si quae interemant innumerabilia sint, etiam ea quae conservent infinita esse debere*.

581—599: this you must carefully bear in mind: the more powers and properties anything possesses, the greater variety of elements it contains: thus the earth has elements out of which seas and fountains and fires, out of which crops and trees, rivers and pastures are supplied; it is therefore called mother of gods, men and beasts alike. 581 *obsignatum*: the force of the metaphor is obvious: the signing and sealing a document is a proof of its importance. *quoque* would certainly seem to belong rather to *Illud* than to *obsignatum*; as 216 *Illud in his quoque te* cet. where there is no doubt: see n. to V 192: it might here be explained *sealed*, as well as written and deposited: Ov. her. XIII 66 *Signatum memori pectore nomen habe*. 582 *mandatum* i.e. menti, follows on the *obsig*. 586 *vis multas*: III 265 *multae vis*: Probus cathol. p. 19 22

Keil 'Lucretius tamen numero plurali hae *vis* et has *vis*'; p. 31 1 'hae *vis*, sicut Lucretius et Varro'; Sallust and Messalla also use this form. 590 *volventes frigora*: a bold and beautiful image. 593 *imp. Aet.*: VI 281 *gravis ignis Impetus.* 595 *habet* (corpora prima) *unde.* 596 comp. 875. 598 *Quare* cet.: having more variety of first bodies in her, she has greater powers of production; and therefore is preeminently styled the mother of all living things, as from her alone comes the food which sustains all. *mag. deum mat.*: 655 *terrarum dictitet orbem Esse deum matrem*: this and the *mater Idaea* were her legal and official names: see n. to 611. Dio speaking of Cybele's temple at Rome calls her ἡ μητὴρ τῶν θεῶν.

600—660: her the old Greeks have personified as the great mother: she rides in a chariot drawn by lions; wears a mural crown, has Phrygian attendants, is accompanied with noisy music, receives on all hands alms; her followers represent the Curetes who saved the young Jupiter from his father: all which things are an allegory with some moral significance; but beautiful as they are, they are mere fancies; the blessed and immortal gods trouble themselves not about men: as you call the sea Neptune and the like, call the earth mother of the gods, if you please; but remember at the same time that it is senseless matter, only containing the elements of many things. 601 Aen. III 113 *Et iuncti currum dominae subiere leones*; X 252 *Alma parens Idaea deum cui Dindyma cordi Turrigeraeque urbes biiugique ad frena leones*; and Soph. Phil. 399 Ἰὼ μάκαιρα ταυροκτόνων Λεόντων ἔφεδρε. 602 foll. Varro quoted by St Austin de civit. dei VII 24 *quod turres in capite* (habeat significari esse) *oppida*; *quod sedens fingatur, circa eam cum omnia moveantur, ipsam non moveri...leonem adiungunt solutum ac mansuetum, ut ostendant nullum genus esse terrae tam remotum ac vehementer ferum quod non subigi colique conveniat*: see Haupt in Hermes IV p. 333: he quotes Servius on Aen. III 113, who paraphrases this passage of Lucr. 603 comp. I 1057. 604 605 comp. Ovid fasti IV 215 *coepi 'cur huic genus acre leonum Praebeat insolitas ad iuga curva iubas'. Desieram. coepit 'feritas mollita per illam Creditur: id curru testificata suost'*: all this part of Ovid much resembles Lucr. 606 *Murali corona*: Aen. VI 784 *Berecyntia mater Invehitur curru Phrygias turrita per urbes*; Ov. l. l. 219 *At cur turrifera caput est onerata corona? An primis turres urbibus illa dedit?* and Spenser f. qu. IV 11 28 *Old Cybele arayd with pompous pride, Wearing a diadem embattild wide With hundred turrets like a turribant*: the mural crown given to the soldier who first mounted the walls was imitated from the walled crown of Cybele. 611 *Idaeam voc. mat.*: her legal name: Cic. de leg. II 22 *Praeter Idaeae matris famulos...ne quis stipem cogito*; and Livy XXIX 10 5 the Sibylline books say *si mater Idaea a Pessinunte Romam advecta foret*: the expression continually recurs in Livy; XXXVI 36 3 he joins *matris magnae Idaeae*;

Sueton. III 2 *matris deum Idaeae*: see n. to 598, and Wilmann's ex. inscr. Lat. indices p. 478: Augustus says in his res gestae IV 8 *aedem matris magnae in Palatio feci*; as she is termed by Livy too. *Phrygias*: Lucr., as Virg. Aen. IX 80 *Phrygia...in Ida*, points to the Trojan or Phrygian Ida: the whole worship was purely Phrygian: Eurip. Bacch. 58 τἀπιχώρι' ἐν πόλει Φρυγῶν Τύμπανα, Ῥέας τε μητρὸς ἐμά θ' εὑρήματα: though, as we can see in this very passage, the Phrygian and Cretan legends got mixed together. 613 *creari*=nasci: therefore *coepisse* may be used instead of *coeptas esse*. 614 *numen...Matris* i.e. Cybeles, though Creech sneers at poor Fayus of the Delphin for so taking it. 615 *et* cet. explains *numen qui vi. ma.*: they outrage her divinity by ingratitude to parents; as she is great mother of men as well as gods: see 599. For this explanatory use of *et* comp. n. to III 993 *atque exest. et* here='that is to say'. 617 *quĭ in*: see n. to 404. 618 *palmis*: it appears from old paintings that the *tympanum* was struck with the open hand: Catul. 64 261 *Plangebant alii proceris tympana palmis*; 63 21 *Ubi cymbalum sonat vox, ubi tympana reboant*; [Anthology (Riese) 726 18 *resonant cava tympana palmis*. See too Mayor Juv. VIII 176 and index s.v.] *tenta*, explained by Auson. in his imitation, epist. 25 21 *tentis reboant cava tympana tergis*. *cym. cir.*: Virg. geor. IV 64 *matris quate cymbala circum*; Ovid fasti IV 213 *Cymbala pro galeis, pro scutis tympana pulsant, Tibia dat Phrygios, ut dedit ante, modos*; met. IV 29 *inpulsaque tympana palmis Concavaque aera sonant*. 619 *raucisono* cet.: V 1084 *Raucisonos cantus*; Catul. 64 263 *raucisonos efflabant cornua bombos*: an imitation of Lucr.; see context. 620 *mentis*: see introd. vol. I p. 35. 624 imitated by Virgil l. l. to 606. 625 *Munificat* and 627 *largifica* appear to be ἅπαξ λεγόμενα. 626 *iter viarum*: V 1124 *iter infestum fecere viai*; 714 *cursusque viam sub sole tenere*. 627 *ningunt*, a fine image to express the thick falling of the flowers: Ovid ex Ponto II 1 36 *Saxaque roratis erubuisse rosis*: Lucr. seems alone to use the word in this way and with this sense; but *pluo, fulmino*, etc. are often used personally as well; 618 we had *tonant*. 629 *Curetas...Phrygios*, called after 633 the *Dictaeos Curetas*: most Greek authorities confine the *Curetes* to Crete, and call the Phrygian attendants *Corybantes*; but Eurip. Bacchae 120—125 places the Κουρῆται and Κορύβαντες both in Crete, and so Ovid l. l. 210 unites the two, *Hoc Curetes habent, hoc Corybantes opus*: comp. too German. 35 *attonitae cum furta parentis Aerea pulsantes mendaci cymbala dextra, Vagitus pueri patrias ne tangeret auris, Dictaei texere adytis famuli Corybantes*, his original having Δικταῖοι Κούρητες: German. appears to leave his original in what precedes too for Lucr. Later Latin poets confound the *Curetes* and *galli*. 630 *forte*: 'quo poeta' says Lach. 'significat eos non semper armis ludere, sed interdum, si quando libuerit'. *quod* refers of course to 633 *referunt*. 631 *Ludunt in*

num. ex. and 636 *in numerum pulsarent* cet.: Virg. ecl. VI 27 *in numerum faunosque ferasque videres Ludere*: IV 769 *Bracchiaque in numerum iactare et cetera membra*; 788 *in numerum procedere*; Ov. trist. IV 1 10 *In numerum pulsa...aqua.* V 1401 *extra numerum procedere* is the opposite: so Cic. parad. III 26. 632 almost repeated V 1315: Ov. met. I 179 *Terrificam capitis concussit terque quaterque Caesariem.* *numine* implies the swaying of the head to this side or that: comp. IV 179 *In quem quaeque locum diverso numine tendunt.* Wagner philologus suppl. I p. 400 well defends *numine*, and asks why the mss. which in 4 or 5 places rightly keep *momen*, should just err in these two places, where *numine*, supposing it can have the sense of *nutus*, seems more appropriate: Conington to Aen. II 123 compares Catul. 64 204 *Adnuit invicto caelestum numine rector, Quo* cet. where both meanings seem to unite: Livy VII 30 20 *annuite, patres conscripti, nutum numenque vestrum invictum Campanis.* 633 foll. Ov. l. l. 207 *Ardua iamdudum resonat tinnitibus Ide, Tutus ut infanti vagiat ore puer. Pars clipeos sudibus, galeas pars tundit inanes.* 635 *pueri* with reference to the name Κουρῆτες: *pueri, puerum* followed by *aeribus aera* is another of his many assonances. Lucr. may have been thinking here of Callimachus hymn. in Iov. 52 Οὖλα δὲ Κουρῆτές σε πέρι πρύλιν ὠρχήσαντο Τεύχεα πεπλήγοντες ἵνα Κρόνος οὔασιν ἠχήν Ἀσπίδος εἰσαΐοι καὶ μή σεο κουρίζοντος. Comp. Aen. I 684 *pueri puer indue vultus*; V 569 *pueroque puer dilectus Iulo*; Plaut. capt. 626 *puerum te vidi puer*; 639 *iam inde usque amicus fuit mihi a puero puer*; Ov. ex Ponto IV 3 12 *Paene puer puero iunctus*; 12 20 *Paene mihi puero cognite paene puer.* *pernice*: V 559 he has the more usual *pernici*: comp. *simplice* in I 1013: Catullus has *infelice*; and even in Cicero are found *felice furace truce*: see also Mommsen, Hermes I p. 466, and Neue II p. 47—49. Propert. I 8 19 I would read *Ut te praevectam felice* (*felici praevecta* mss.) *Ceraunia remo*: *ce* of *felice* was prob. absorbed in *Ce* of *Ceraunia*, and then *felici praevecta* read to give a verse. 636 comp. Ovid cited just above and to 618; and met. III 532 *aerane tantum Aere repulsa valent?*; fasti IV 183 184: the Cretan Curetes clashed with real arms; the cymbals and tambourines of the Phrygian Curetes recall the memory of that old story. 638 *malis mandaret*: Cic. de orat. III 217 and again Tusc. IV 77 quotes from Accius *hortatur me frater ut meos malis miser Mandarem natos*, as the latest editors of Cicero read after all the best mss. of the Tusc.; but the best mss. of the de orat. and Ribbeck trag. rel. have *manderem*; which certainly is the more natural expression: so Virg. geor. III 268 *malis membra absumpsere*; Aen. III 257 *malis absumere mensas*: yet Lucr. seems to have read or thought he had read in Accius *mandarem.* 639 Aen. I 36 *aeternum servans sub pectore vulnus*: Lucr. himself I 34 *aeterno devictus vulnere amoris.*

646—651: of many passages which might be quoted the most in

point is the first κυρία δόξα of Epic. himself in Diog. Laer. x 139 τὸ μακάριον καὶ ἄφθαρτον οὔτ᾽ αὐτὸ πράγματ᾽ ἔχει οὔτ᾽ ἄλλῳ παρέχει ὥστ᾽ οὔτ᾽ ὀργαῖς οὔτε χάρισι συνέχεται· ἐν ἀσθενεῖ γὰρ πᾶν τὸ τοιοῦτον, translated by Cic. de nat. deor. I 45 *quod beatum aeternumque sit, id nec habere ipsum negotii quicquam nec exhibere alteri, itaque neque ira neque gratia teneri, quod quae talia essent inbecilla essent omnia*: at v 146 foll. and 1161 foll. more will be said on this question: that Epicurus and Lucr. firmly believed in the existence of these gods is certain; how this immortality and supreme felicity can be reconciled with the rest of their philosophy, it were vain to ask; for no answer could be given. Did the gods exist from all eternity? or had they a beginning? The words of Ennius trag. 353 are well known, *Ego deum genus esse semper dixi et dicam caelitum, Sed eos non curare opinor quid agat humanum genus.* 646 with *Omnis divom natura* comp. 757 *si nulla coloris principiis est Reddita natura*; I 710 *in rerum naturas vertier omnis*: he usually gives the epithet to *natura*, not to the substantive depending on it: see n. to I 281 *mollis aquae natura*; and comp. also I 962 *haec sensus natura*. *divom natura* seems to be a mere periphrasis for *divi*; as I 194 *natura animantum* for *animantes*: comp. too *natura aquae*, *mundi*, *animi*, *animae*, *sensus*, etc. 649 *privata* = expers, is very common in Lucr. as III 905 *cunctis privatu' doloribus aegris*. 650 paraphrased by Claudian de cons. Mall. Theod. 4 who says of virtue *Nil opus externae cupiens, nil indiga laudis, Divitiis animosa suis*. 652 *Neptunum*, as he himself does 472 *Neptuni corpus*: 653 *Bacchi nom.* as he does himself III 221 *Bacchi cum flos evanuit*: but in these verses he doubtless points at the stoics who carried allegory of this kind to an absurd length: see what the stoic Balbus says in Cic. de nat. deor. II 50 foll. Every part of heaven and earth was thus parcelled out among the gods and demigods, and fatuous derivations assigned to their names by Zeno Cleanthes Chrysippus and other leaders. 653 *Bacchi*, 654 *laticis*: *Bacchi latex vinum* glossary in Hermes VI p. 176: see too Mayor on Juv. VII 25, 2nd ed.; and comp. Cic. de nat. III 41. 656 *ipse* seems most simply taken with *animum*, so that it = ipse suum animum: so Aen. XI 544 *Ipse sinu prae se portans*; and so *ipse manu* often in Virgil = sua manu. It may denote the real man in contrast with his empty words: the exact force of *ipse* is often easier felt than expressed. 658—660 (652—654) see notes 1; and for an explanation of this transposition see vol. I p. 29. 659 *potitur primordia*: the same constr. is found III 1038 *Sceptra potitus*, and IV 760 *quem...potitast*: the latest editors appear to banish it wholly from Cicero; but the best mss. of the auctor ad Heren. IV 57 have *potitus est gloriam*: this constr. is very common in the fragments of the old tragic writers; and the auctor belli Africae has it 4 or 5 times, auctor belli Hisp. once; both homely writers and contemporaries of Lucretius.

661—699: in this way sheep horses and cattle, eating the same grass and drinking from the same river, all keep their distinctive differences; thus grass and each river must contain most different elements: nay the parts of the same animal are quite different; and are formed therefore of different elements: then too fuel must contain elements of fire and flame and ash; then many things have divers properties, colour flavour and smell; and these have all different elements as they enter things in different ways; things therefore must be of mixed seed: again as the same letters are common to different words, so the same elements may be common to most different things, to men and corn and trees. 661 *itaque* manifestly refers to *Multa modis multis effert*: with these words in their old place it has no meaning: the thread of the argument dropped at 599 is again resumed, i.e. the great variety of elements the earth contains. 662 *duellica*: so *duellum duellatores*, *perduellis* which always remained in use, *Duelonai* is an old inscription, *duonoro* (bonorum) on the tomb of the Scipios: Lach. quotes from Plautus capt. prol. *bellique dvellatores optumi*, the *u* of such words in Plautus being generally, as here in Lucr., a consonant; so Ennius *perdvellibus*. 663 *Buceriae*: Nonius Charisius Servius all attest the feminine: Lucr. uses the neut. *bucera* more than once. *sub. teg. caeli*: see I 992. [664 *flum. aquai*: Aen. XI 495 *aquae perfundi flumine noto*.] 669 *Hinc porro*, 671 *porro*, 673 *Tum porro*, as if the use of the word suggested unconsciously its repetition. 678 *igitur*: see n. to I 419: it has the force which it not unfrequently has in the old writers, as Plaut. miles 772 *Quando habebo, igitur rationem mearum fabricarum dabo*, the participial clause being equivalent to a protasis: see Hand Turs. III p. 185. 679 *figuras*, 682 *figuris* and 685 *primis figuris*: see n. to 385: in these three places the word clearly refers to atoms, but may include also shapes of atoms; as it must so far have been ambiguous to Lucr. 680 foll. see Journal of philol. IV p. 243 244: III 266 *Quod genus in quovis animantum viscere volgo Est odor et quidam color et sapor*, seems like a reference to our passage, confirming my conception of it. 681 *Reddita*: for the neut. referring to 2 masculines Lach. compares III 282 *ventus et aer Et calor inter se vigeant commixta*: III 559 the neut. is even harsher; see n. there: the neut. is the rule when the prec. substantives are masc. and fem. *cŭm od.*: see n. to 404. *dona*: IV 1237 *adolentque altaria donis*; VI 752 *non cum fumant altaria donis*. 683 *Nidor*, which specially designates the smell of burnt animal matter and other greasy substances, is substituted for *odor* of 681. 683 and 684 *fucus* = color: so 744 *nullo circumlita fuco*, and IV 84 *fucum Mittunt*. 685 *pr. fig.*: VI 776 *primasque figuras*. 688—690 = I 823—825. 691 *multa parum*: see n. to 336. 694 = 337 = 724. 698 *merito ex aliis* cet. though they have very many elements in common.

700—729: but all elements cannot unite in all ways: else monsters of all kinds would arise: every creature has its fixed seeds, its fixed mother; and thus is kept within its limits; and of the elements it takes as food some only remain, others are rejected as unsuitable: and so it is with inanimate as well as animate things; they have each elements different or differently combined; and the modes of action of these elements differ, so that not only living bodies, but all nature, earth sea and heaven, are kept distinct. 700 foll. this question is more fully discussed v 837—924. 702 *Semiferas* the centaurs: comp. v 878 foll. 703 *egigni* seems a ἅπαξ λεγόμ.: with *eg. corp.* comp. vi 761 *Et quibus effiant causis*, and n. to v 703: Hor. sat. ii 2 105 *tanto emetiris acervo.* 704 he speaks of Scylla: comp. v 893. 705 comp. v 900—906. 706 *omniparens terra* is found also v 259 and in Virgil. 710 and 725 *necessust* recurs iv 1006: see n. to 289, and Lach. vi 815; who shews that Terence has *necessus fuit, sit necessus*: Plautus *necessumst, necessust, necesse est*, all three forms found in Lucr. But *necessust* in Plautus must surely be *necessus est*, and this contraction Lucr. would not use: are we to read *necessumst* here, or is there a nom. *necessu*? 711 *intus* i.e. when they are inside the body. 714 *reicere* i.e. the different excrements. *multa caec. cor....e cor.*: see n. to i 875, and ii 843 846 *Corpora prima.. Nec iaciunt.. de corpore*: here in fact *multa* would naturally agree with *corpora*; so that we should then have *multa corpora Corp. caec. fug. e corpore.* 717 *consentire* = una sentire. 719 *disterminat* is used by Cicero Arat. 94: 'keeps the *termini* of things apart.' 725—729 as the atoms differ in shape, then the void spaces between them, when they are in union, must differ; and therefore the passages, the manner in which they are linked together, the weights collisions and the like must all differ: thus not only does each living thing preserve its individuality, but inanimate things as well; and indeed the great divisions of the whole world, earth sea and heaven, are kept from intermingling: heaven earth sea have all many common elements, but as a rule the heavier and those which unite more closely will seek the heavier earth, the lighter the lighter ether or air and the like. 726 *Intervalla—motus*: recurs v 438 439, and partly, i 633 634. 729 *retentant* seems synon. with *retinent.*

730—756: atoms have no colour whatever: the mind has to conceive them as without colour; for any colour may change into any other; but the first bodies are unchangeable, or things would pass into nothing.—He proceeds to shew that atoms have none of what are called secondary qualities, colour and the like: the import of this section is briefly given by Epicurus in Diog. x 54 τὰς ἀτόμους νομιστέον μηδεμίαν ποιότητα τῶν φαινομένων προσφέρεσθαι πλὴν σχήματος καὶ βάρους καὶ μεγέθους καὶ ὅσα ἐξ ἀνάγκης σχήματι συμφυῆ ἐστί. ποιότης γὰρ πᾶσα μεταβάλλει, αἱ δ' ἄτομοι οὐδὲν μεταβάλλουσιν, ἐπειδήπερ δεῖ τι ὑπομένειν ἐν ταῖς δια-

λύσεσι τῶν συγκρίσεων στερεὸν καὶ ἀδιάλυτον, ὃ τὰς μεταβολὰς οὐκ εἰς τὸ μὴ ὂν ποιήσεται οὐδ' ἐκ τοῦ μὴ ὄντος: and Diog. 44 referring forwards to this passage adds τὸ δὲ χρῶμα παρὰ τὴν θέσιν τῶν ἀτόμων ἀλάττεσθαι ἐν ταῖς δώδεκα στοιχειώσεσί φησι ('Επίκ.). Democritus, as appears from Diogenes Sextus Stobaeus and others, held quite the same views. 730 *Nunc age* calls for attention as he is passing to a new and important argument. 731 *albis ex*: see n. to I 841. 733 *nigrant*, a very rare word except in the pres. partic. 734 *Nive*: III 286 *Ni*; [Lucil. XXIX 73 *ni rediret*,] Catul. 61 153, and ?Aen. III 686: Orell. inscr. Lat. 4783 *rogo per deos superos inferosque ni velitis ossa mea violare*: the new corp. inscr. Lat. has many instances of *ni* and *nive* and more than 100 of *nei* and *neive* which connect the *ni* with the common form *ne*: see also Donatus quoted to I 277 *nimirum*. *inb. colorem*: Virg. geor. III 307 *Vellera.. Tyrios incocta rubores*; Tac. hist. V 5 *nec quicquam prius inbuuntur quam contemnere deos*; III 74 *aramque posuit casus suos in marmore expressam*, imitated from Val. Flacc. I 398 *casusque tuos expressa, Phalere, Arma geris*; id. II 655 *Pocula bellorum casus expressa*; I 402 *caelata metus alios gerit arma*: [comp. also Draeger hist. synt. I p. 335 (inscriptus, suspensus, cet.), and Stat. Theb. IV 267 *pictus praelia.*] 740 *animi iniectus*: 1047 *animi iactus liber quo pervolet ipse*: comp. Cic. de nat. deor. I 54 there quoted, who uses *in quam se iniciens animus* in the same way: Gronovius obs. I 4 p. 65 shews that both Cicero and Lucr. are translating Epicurus' technical word ἐπιβολή or ἡ φανταστικὴ ἐπιβολή: comp. Epicurus in Diog. Laert. X 62, where τὸ κατ' ἐπιβολὴν λαμβανόμενον τῇ διανοίᾳ is opposed to what is perceived by sense; they are the two great ways by which truth can be arrived at. 741 *caecigeni* seems peculiar to Lucr. 743 *Ex ineunte aevo* recurs in Lucr. five times and always denotes, as here, the beginning of the life or existence of some living or inanimate things. 748 a verse must be lost here, such as *Corpora quae constant nullo coniuncta colore.* 749 *Omnis*, *omnino*, *in omnis*. The argument is curtly but clearly expressed: any colour may change into any other; if then white colour comes from white atoms, black from black, the atoms must change; but this we have proved to be impossible. 751—754 = I 790—793. 755 *contingas*: see n. to I 934.

757—787: again if atoms have no colour, but beget any colour by their different shapes positions motions and the like, you can explain change of colour: thus the green sea becomes white: why? by its elements changing their order, and by some going, others coming: but green elements could not become white. But if you say they have different colours, then you should see in the one colour of the sea others quite different mixed up, as in a square composed of various shapes you see these shapes: again these shapes do not prevent the whole exterior being square; but different colours would prevent a thing being of one colour.

757 foll. with this and with what precedes and follows comp. what Plut. adv. Colot. 7 cites from the 2nd book of Epicurus against Theophrastus: colours are not *συμφυῆ τοῖς σώμασιν, ἀλλὰ γεννᾶσθαι κατὰ ποιάς τινας τάξεις καὶ θέσεις πρὸς τὴν ὄψιν κ.τ.λ.* 760—762 nearly = I 817—819, 908—910, II 1007—1009. 767 *candenti marmore* is abl. of quality: with *canos candenti* comp. 771 *candens et album*, both mere pleonasms: ciris 320 *candentes canos*; Catul. 64 14 *candenti e gurgite*, 18 *e gurgite cano*. 777 *nitorem* = colorem, as 782 787 and 819. 780 *Conveniebat*, after 776 *Sin sunt*: the tense always used by Lucr. in this sense: another proof, if that were needed, that III 685 *Convenit* cet. is spurious, the right form *Conveniebat* having preceded in 682. 785 *extra*, on the outside, opposed to what is *intus*, seems quite to suit the meaning: comp. Varro de re rust. III 16 16 *vitiles fimo bubulo oblinunt intus et extra*; [Quintil. inst. orat. I 10 43 *deni in quadram pedes, quadraginta per oram, intra centum erunt*:] comp. too Lucr. IV 646 *Ut sunt dissimiles extrinsecus*.

788—794: we are tempted to give to atoms colour, not knowing how colour otherwise can come: but we have seen that white can come from what is not white; and surely white can arise more easily from no colour, than for instance from black: this reason then falls to the ground. 789 *causa*, i.e. the vulgar notion that things with colour cannot come from things without colour; which is easily understood from 730 foll. 790 *quoniam*, as seen in the last paragraph. 791 *cluent* = sunt. *variis ex*: see n. to I 841.

795—816: again colours cannot exist without light, atoms never come into the light, therefore atoms have no colour: what colour can there be in darkness, when we see that the same thing continually changes its colour in different lights? as therefore it is such and such stroke of light which produces such and such colour, without that stroke they cannot exist: as too one stroke produces white, another black, and as a stroke is a touch, and as it is shape, not colour, which affects touch, atoms need, not colour, but different shapes to give different touches. 795 foll. Lucretius' syllogism is quite correct; it is Lambinus' which is in fault, who quite misstates the poet's minor premiss. 797 *velata*: a picturesque metaphor. 799 *quin ipso* = quinetiam: see n. to I 588. 802 *cervices collumque*, one of his many pleonasms; as *cervices* means the back, *collum* the whole circle of the neck: Cic. in Vatin. 4 *inflato collo, tumidis cervicibus*; pro Sestio 90 *et cervices et iugulum*. 803 'the *pyropus* was made by adding 6 scruples of gold, or one quarter, to the ounce of copper' King on gems p. 116. But the pyrope was also a precious stone, a kind of garnet: ib. p. 53; and this meaning agrees perhaps better with the *curalium* and *zmaragdos* of 805. Ovid. met. II 2 *flammasque imitante pyropo*. 804 *sensu* refers to the beholder's perception or mode of viewing it: IV 448 *quodam sensu fit uti videantur Omnia*.

805 Wak. well compares Samon. 952 *Curalium vero si collo nectere males, Ne dubites illo virides miscere smaragdos*: he plainly imitates Lucr. 807 *obversa*, as it turns about: Aen. III 549 *Cornua velatarum obvertimus antemnarum*; Ov. met. III 676 *obstantes dum vult obvertere remos.* 809 *Scire licet*: see n. to I 210.

817—825: again if atoms have colour, it will not be said that this or that colour belongs only to this or that shape of atom: why then should not things formed out of coloured atoms vary their colours also? why should not crows be sometimes white, swans black or green? 819 *Formamenta*, another of the many words which seem peculiar to Lucr. and his imitator Arnobius. 821 *perf. col.*: Aen. V 111 *ostro Perfusae vestes.* 825 may be briefly put for *Aut cycnos fieri alio quovis colore, vel uno vel vario, de semine eius coloris*; and then with *uno varioque* comp. 830 *Purpura poeniceusque color* i.e. color sive purpureus sive poeniceus; V 985 *Spumigeri suis adventu validique*, where Lach., as I now see, wrongly reads *ve* for *que*; 1237 *dubiaeque minantur*, where Bentl. reads *dubiaeve*; VI 114 *chartasque volantis*: Wagner quaest. Virg. XXXIV 1 gives many similar instances from Virgil of *que* with the force of *vel, vel* or *sive, sive*: comp. too n. to III 551 *manus atque oculus naresve.* But as Lucr. is so fond of *quivis unus* for *quivis* simply, I now take *alio varioque colore* to be one of his many pleonasms for *alio colore* or *vario colore*: comp. 778 *ex aliis formis variisque figuris*; 783 *Dissimiles longe inter se variosque colores*; V 1060 *Dissimilis soleant voces variasque ciere.*

826—833: again the smaller the shreds into which a thing is divided, the more its colour vanishes: be sure that all colour is gone before a thing comes to its first elements. 829 with *austrum* and *ostrum* comp. *Claudius* and *Clodius*, *Paulus* and *Pola*, *ausculum ausculari* and *osc.*, *aula*, *aulularia* a play of Plautus, and *olla*, *plaustrum* and *plostrum*, and the like; *laurea*, and the plebeian *loreola* in a proverb quoted by Cic. ad Att. V 20 4. *austrum* is the general term for the purple cloth of whatever hue: [so in Catull. 64 48 *quod...Tincta tegit roseo conchyli purpura fuco*, *purpura* is the purple cloth:] comp. Aen. I 700 *stratoque super discumbitur ostro*; Hor. epist. I 10 26 *Sidonio ostro*; Stat. Achill. II 82 *picto discumbitur ostro*: whether this cloth be the *purpura* or darker hue, or the *poeniceus* or bright scarlet. Prop. V (IV) 3 51 *Poenis tibi purpura fulgeat ostris*; Aetna 333 *purpureo ostro*; Sen. Med. 99 *ostro puniceo*; Claudian Prob. et Olyb. consul. 90 *Album puniceo pectus discriminat ostro.* Lach. shews that *poeniceus puniceus poinicius punicus* have all the same meaning, belonging to the *Poeni*: thus the lex Thoria has *bello Poenicio*, Ovid *A duce Puniceo*, while Horace applies *Punico* to the colour; as does Ovid too, am. II 6 22. 832 *effl. col.*: V 652 *suos efflavit languidus ignis.*

834—841: you do not assign sound or smell to things which give forth no sound nor smell: why then attribute colour to all things? the

mind can perceive things without colour as well as things without smell.

842—864: but atoms are likewise without heat or cold, without sound flavour or smell. As in preparing a perfume you seek out a quite scentless oil, that it may not infect the perfume with its own scent; thus first-beginnings must possess neither heat nor cold, smell sound nor flavour; these qualities are all frail and mortal, and must therefore be wanting to immortal elements unless things are to pass away to nothing. 842 *colore*: the frequency with which this word has been repeated in the last 100 lines is very striking. 842 foll. notice the variety of expression to denote privation: *spoliata secreta sterila ieiuna seiuncta*, and above *privata, sine odore, sonitu remota, orba colore, efflare stingui evanescere colorem*; all in the compass of a few lines. Democritus before him in Sextus adv. math. VII 135 said νόμῳ γλυκὺ καὶ νόμῳ πικρόν, νόμῳ θερμόν, νόμῳ ψυχρόν, νόμῳ χροιή· ἐτεῇ δὲ ἄτομα καὶ κενόν. 843 *manere* = esse, 845 *feruntur* = sunt, as *cluent* so often is in Lucr.: it is curious that two such opposite words should come to have the same force: *feruntur* is elsewhere applied by him to his atoms in onward motion; but that can hardly be its sense here: with *manere* comp. VI 1274 and the use of *stare* in n. to II 181. [*manere* is thus used by Sall. hist. orat. Lepidi 24 *nisi maneat expulsa agris plebes.*] *secreta teporis*: I 194 *secreta cibo*, with abl. 844 *calidi vaporis*: *calidus* in Lucr. is a perpetual epith. ornans of *vapor ignis fervor* etc.: comp. *gelidae pruinae*, *gelidus rigor*, *candens lacteus umor*, *aeriae aurae*, *sonitu sonanti* and the like: 858 *calidum tepidumque vaporem*, the epithets are distinctive. 845 *sonitu sterila*: the gen. is more common: the form *sterilus* is mentioned by Festus: see n. to I 340. *suco ieiuna*: Cic. orator 106 has the gen., *ieiunas igitur huius...orationis aures civitatis accepimus.* 846 *ullum proprium odorem*: 855 *adhibere suum gignundis rebus odorem.* 847 *amaracini*: this perfume is mentioned IV 1179 and VI 973. Daubeny Rom. husbandry p. 272 'Dioscorides and Pliny both tell us that *amaracus* was the same plant as *lampsana*, and the latter is considered by Sibthorp to be our marjoram, *origanum maiorana*, a native of Egypt and Crete'. *stactae*, named from the dropping of the myrrh juice: Pliny XIII 17 says *murra et per se unguentum facit sine oleo, stacte dumtaxat*; and Dioscor. I 73 says the same, στακτὴ...καθ' ἑαυτὴν μύρον καλούμενον, δόκιμος δέ ἐστιν ἡ ἀμιγὴς ἐλαίῳ: but the point of Lucretius' argument is the mixture with oil. 848 *nardi florem*, unless Lucr. is speaking vaguely, must be used, as *Bacchi flos* and the like, for the aroma or bouquet; as it appears from Pliny and Dioscorides that it was the ear and leaf of the eastern *nardus* that was used in perfumes; the stalk and root of the northern. 849 *Cum...instituas*: see n. to 41. 850 *possis* is potential, because the 2nd pers. sing.: see n. to I 327: if he can there use *potest* and *possis* in the same passage, he may surely

here join *licet* and *possis*: comp. too Ovid rem. 415 *Dum piget et malis nullam tetigisse puellam Tacturusque tibi non videare diu*: but comp. too ars III 761 *Aptius est deceatque magis.* *inolentis* another ἅπαξ λεγόμ. 851 *auram*: Martial III 65 2 *de Corycio quae venit aura croco*; and Virg. geor. IV 417 *spiravit crinibus aura.* 853 *viro* in this sense is almost unexampled: VI 805 *odor viri* is used for the pungent fumes of charcoal. [Mart. VI 93 7 *Virus ut hoc alio fallax permutet odore*; I 87 5 *Quid quod olet gravius mixtum diapasmate virus?*] 859 *Cetera* without *et*: so 1085: it is found in Cicero, as topica 27. *tamen*, as so often, implies something understood: all these, whatever they are, however much they differ, are yet of such sort as to be liable to death, whether they are *Molli lenta* or etc.: the *molli lenta* seems to refer to fire and heat, *fragosa putri* to ice and cold, *cava corp. raro* to flavour sound smell; as they are all material and would seem, where he describes them, to be of bodies severally like these: Cic. ad Att. IV 15 2 *cum illis tamen*, (i.e. even if you desert them now), *cum salvi venerint, Romae vivere licebit.* 860 *fragosa* = fragilia: a sense which the word seems nowhere else to bear. 862 *subiungere* appears to be the opposite of *seiuncta* in the preceding verse: such things must be detached, that imperishable foundations may be attached to things.

865—885: all things which have sense come from insensible elements: a visible proof of this you may see in living worms rising from the putrid earth: again grass and water change into cattle, the flesh of cattle into men, men often go to feed beasts and birds: nature turns food into what has life and sense, much as dry wood passes into flame; so much is effected by transposition and mixture and motions of elements. —That the soul, the vital principle and sense were born and died with the body in all creatures, was of course a necessary doctrine of the epicureans and is passionately asserted by Lucr. throughout the third book. 866—870 and 888 *insensilibus*: this word as well as *sensilis* seems peculiar to Lucr. among writers of authority: Arnobius his constant imitator has *insensilia.* 869 *ipsa manu ducunt*: Aen. III 372 *Ipse manu multo suspensum numine ducit*, literally: the metaphor is obvious: χειραγωγεῖν is common in the later Greek writers. 871 foll. this illustration, important from his point of view, he often repeats; see 898, 928, III 719, V 797: Aristotle and the old physiologists seem to accept it as an undoubted fact. 872 *putorem*: 929 *putor*, VI 1101 *putorem*: all of the rottenness of the earth after rain; though *putor* in Varro de ling. Lat. V 25 and elsewhere is said of a *putidus odor*: Lamb. and others would read in all these cases *putror.* 874 *itidem* i.e. inanimate things into living and sensible. 875 comp. 596 *Unde etiam fluvios frondes et pabula laeta* cet.: this justifies Lambinus' correction: the streams, the leaves and grass feed and sustain beasts, beasts feed us. 878 *pennipotentum*: this expressive word recurs V 789. 881 flame seeming to be no more

like wood than a sensible to an insensible thing. *adque* B some six times, A never: it seems to have become more common in the first century and later from a false affectation of analogy: see n. to VI 92 *praescribta.* Wagner forces *adque* on Virgil in all cases, against the overwhelming testimony of mss.: Augustus however in his res gestae writes *adque* the only time he uses the word; but he also writes *aliquod* for *aliquot*, perhaps from a notion of consistency: see vol. I p. 34 and 35. 883—885 repeated in substance 1007—1009.

886—930: the mind tries hard not to believe that sense can come from what has not sense; for stones wood clods can by no mixture produce it: but, mind, it is not every element that can beget sense; only certain atoms with certain shapes and arrangements: yet even these woods and clods may, as we have seen, give birth sometimes to living things. But they who say that sense can only come from what has sense, suppose elements to be soft, as we never see sense united but with what is soft: now suppose such elements eternal; they must have the sense of some part or of the whole living thing: but no part can feel away from the whole thing: well then these elements must be like the whole living thing: if they are living then, they are thereby liable to death; but even if they are not, they would make a mere medley of living things, like the impossible unions of men and brutes: but if they lose their own sense, why then give it only to take it away? nay we have just seen that sense *can* come from what has no sense. 886 *animum percutit* seems almost proverbial: Ter. Andr. 125 *Percussit ilico animum*; Cic. ad Att. IV 8 b 3 *audivi...Romae esse hominem...percussit animum.* 887 *varios sensus* i.e. varias sententias: it is very probable that his frequent use of *sensus* with its primary meaning in this part of his poem has prompted him to use it here, rather than avoid it, in a different signification: see n. to I 875. 892 not out of all atoms alike which go to form things; but only out of certain very fine and smooth ones as proved elsewhere. 894 *quantula*, because the atoms which go to produce sense and life are of the smallest and finest kind. 896 *quae sint* i.e. qualia sint. 897 *Qu. nil rer.* = quorum nihil, a common constr.: Caes. bel. Gall. III 4 3 *quarum rerum a nostris...fieri nihil poterat*; V 1 7 *nihil earum rerum*; bel. civ. I 7 7 *quarum rerum nihil factum*; II 43 2 *quarum rerum nihil*: the opposite constr. is also common: see n. to III 184 *res ulla...quorum. rerum* here has of course an abstract sense, 'none of which conditions': comp. 1018 *discrepitant res*, and n. there. 901 *Conc. ita ut debent* i.e. Conc. tali concilio quali debent: at first sight you might expect *debeant*, as Lamb. suggests; but the indic. is quite idiomatic: Cic. ad Att. IV 5 1 *non est credibile, quae sit perfidia in istis principibus, ut volunt esse, et ut essent, si* cet.; VII 2 3 *adulescentem, ut nosti*, i.e. talem qualem; IX 7 A 1 Balbus says *nedum hominum humilium, ut nos sumus*; XV 4 1 *scripsi ita, ut te probaturum existimo*; Pers. v 73 *Libertate opus est, non*

hac, ut, quisque Velina Publius emeruit, scabiosum tesserula far Possidet: and so v 583 *ut est cumque*: see n. there. In I 442 I should before have kept the ms. reading *Aut erit, ut possunt*, as far more emphatic than *possint*: aut debebit esse tale, in quali possunt res esse gerique. [In this use *ut*=qualis in the widest sense, both as relative and indirect interrogative: for additional examples see Cic. Lael. 19 *ut ii fuerunt, modo quos nominavi*; epist. XIII 64 2 *magnum theatrum habet ista provincia, non ut haec nostra, ad* cet.; ad Q. fr. III 1 2 *mihi, ut est, magis placebat*; Q. Cic. ap. Cic. epist. XVI 27 1 *ea tu sine assentatione, ut erant, ad me scripsisti*; Hor. sat. II 1 54 *nil faciet sceleris pia dextera* (*mirum, Ut neque calce lupus quemquam neque dente petit bos*); Plaut. Bacch. 396 *nunc certamen cernitur, Sisne necne, ut esse oportet*: comp. also 112 *Cuius, uti memoro, rei* and Plautus quoted there. For *ut*=indirect interrogative *qualis*, see Plaut. Amph. 104 *ego vos novisse credo iam, ut* (=qualis) *sit pater meus, Quam liber...siet, Quantusque amator sit*: with this comp. Lucr. v 583: Ussing compares Ter. heaut. 436 *Non tu ei dixisti ut essem?* So *ita* or *sic*=talis: *Lucretii poemata, ut scribis, ita sunt*; Plaut. Amph. 571 *Utinam ita* (=talis i.e. ebrius) *essem*: see Ussing here: and Cic. Laelius 5 *sic enim est habitus.*] 902 foll. a hiatus is not only the simplest remedy here, as not a letter of the ms. reading has to be altered, while Lach. in 3 vss. makes 4 changes; but seems necessary for the argument: in making things sensible, they make them soft, and, *if soft, then mortal too.* 907 *esto iam*: see n. to I 968. 909 *Aut* (sensu) *simili esse putari*: comp. III 620, VI 268. 911 *alio...respicit* i.e. respicit ad animam: but the true reading is very uncertain; as is the right place of 915 (923); but I can find none more suitable than the one I have given it after Bern. 922 (921) *nequeant* is potential: comp. 986 *si potest,...queant*; v 210 *Si non...cimus...nequeant*; 648 *queant*; and n. to I 808 *possint.* 925 *quid opus*: for surely if an element first lose sense, it is the same as if it had never had it. 926 foll. *tum praeterea*: a concluding argument drawn from what we actually see going on in the world: see I 984 (998) foll. and other examples in I II III V there cited. 926 *quo fugimus* i.e. quo confugimus: Petron. sat. 132 *Ad verba, magis quae poterant nocere, fugi*, [and? Sen. rhet. I 23 *tibi quaecumque meretrix prostabit fugiet*:] this I keep, because the ms. reading is then most simply accounted for; though my former correction *vicimus* suits the context just as well, and has been adopted by Brieger. *ante* i.e. 871 foll. 927 *Quatenus*=quandoquidem: III 218 *Quatenus...Extima membrorum circumcaesura tamen se Incolumem praestat*; 424 *Quatenus est unum inter se*: see also Horace and others in Forc. for this use. 928 *vermisque effervere*: Virg. geor. IV 556 *apes...ruptis effervere costis.* 930 *ex non sensibus*, 932 *a non sensu*: comp. I 1075 *per non medium*; and n. there.

931—943: if it be said sense comes from what has not sense by a

process of change or a sort of birth, I answer, birth and change both imply a previous union: before the creature is begotten, its body cannot have sense, as its matter is dispersed abroad and has not come together in a way to awake any of the senses.—This passage is obscure: he must apparently be alluding to the stoics: Plut. de stoic. repugn. 41, of Chrysippus, *τὸ βρέφος ἐν τῇ γαστρὶ φύσει τρέφεσθαι νομίζει, καθάπερ φύτον· ὅταν δὲ τεχθῇ ψυχούμενον ὑπὸ τοῦ ἀέρος καὶ στομούμενον τὸ πνεῦμα μεταβάλλειν καὶ γίνεσθαι ζῷον κ.τ.λ.*: now this certainly might be termed a process of change or the effect of a sort of birth; life being the immediate consequence of the birth; but Lucr. is brief and obscure as he is doubtless alluding to writings not extant. 931 *dumtaxat*: see n. to 123. *mutabilitate*, in the unusual sense of actual change: the primary meaning is that in which Cicero uses it, tendency to change. *oriri Posse a non sensu*: IV 484 *quae tota ab sensibus orta est*; 521 *falsis quaecumque ab sensibus ortast*, will support Wakefield's *a* against *ex*. 933 *proditus*, used literally also III 587 *extra prodita corpus*. *prod. ext.*: I 625 *nullis quae praedita partibus extent*; III 929 *expergitus extat*; VI 494 *redditus extat*. 934 *Huic* cet.: he may be told that he really concedes the point that sense *can* come from what has not sense. [*plan. fac.*: lex. agrar. 64 *quod eius agri locei ita planum factum erit.*] 935 *Non fieri partum*: IV 1229 *Semper enim partus duplici de semine constat*. 935 936 so that in both cases there is a union of senseless elements previous to the reception of sense. 936 *s. conc.*: in the three other passages where *conciliatus* occurs, it signifies a union already formed; so that *sine conc.* appears to me almost synon. with *nisi conciliatum*; perhaps even more significant. 937 *Principio*: 'hic est *praecipue* (hoc autem vocabulo Lucretius non utitur) vel *in primis, ante omnia*, *ἀρχήν*. sic in V 92, III 119' Lach. 942 *omnituentes* formed like *omniparens* and the like. 943 *Accensi sensus*: 959 *paene amissos accendere sensus*; III 336 *accensus nobis per viscera sensus*.

944—962: a living creature receives a blow which its nature cannot endure: the senses of body and soul are stunned; the connexion of the two is broken, and the soul escapes through the apertures of the body: a blow can do no more than break up and scatter the several elements. Again the remaining vital motions can often get the better of a less severe blow, bring each thing back to its proper channel, and rekindle the senses: in this way only is the thing recalled to life. 950 *nodos*: VI 356 *Dissoluont nodos omnis et vincla relaxant*. 951 *caulas* Lucr. uses eight times in this sense, a sense quite peculiar to him; see Festus and Varro in Forc.: the word must evidently be *cavula*. *eiecit*: see n. to I 34 *Reicit*: the classical writers knew the forms *eĭcit* or *eicit*, never *eiicit*: and so with the other compounds of *iacio*: III 513 *traiecere* mss.: Ribbeck has often restored the *e* to Virgil; and it was not unknown to Livy: see Madvig emend. Liv. p. 190; and indeed the better mss. of

almost any classical author offer examples: Cic. Marius in de div. I 106 *Abiĕcit ecflantem*; III 639 *dissicietur* mss.; this form Ribbeck's mss. sometimes restore to Virgil; see also Kempf Valer. Max. p. 282 6: Halm reads *dissice* in Cic. pro Caelio 37, and Tac. ann. I 65 M has *dissicere*; but so have the mss. of Seneca, Suetonius and others. 952 foll. the blow can only dissolve the union of the elements, not deprive them of sense, if they had it of themselves. 955 *Reliqüi*, those which the blow has not stopped. *vincere... Vincere*: III 12 *aurea dicta, Aurea*; IV 789 *mollia membra movere, Mollia* cet.; V 298 *tremere ignibus instant, Instant*: 950 *lavere umida saxa, Umida saxa*; VI 528 *omnia, prorsum Omnia*: the practice is as old as Homer. 957 *quicquid*=quicque: see n. to I 289. The *suos meatus* are opposed to the *leti motum* of next v. 960 *qua re* is emphatic here and means 'in what way, if not in this'; I have therefore printed it in two words: comp. Ter. eun. 369 *Quid si nunc tute fortunatus fias? qua re, Parmeno?...capias tu illius vestem*; adel. 327 *Perii: qua re?*; Andr. 909 *qua re?*; Sall. Iug. 101 1 *undique simul speculatores citi sese ostendunt, qua re hostis adesse intellegitur*; [Cic. ad Q. fr. I 3 2 *qua re* (so M: *qua in re* Wesenb.) *peccavi scelerateque feci*; Caes. b. c. III 97 2 *qua re impetrata*; ib. 3 *qua re animadversa*; ib. 4 *qua re animadversa*;] auctor ad Heren. III 18 *statim re narrata expectat animus auditoris, quae re causa confirmari possit*; Cic. ad Att. IX 13 3 *nec ego nunc, cum iuvare qua re possim, scio*: the two last examples have *possim*, like Lucr.; and there are other instances in the auctor ad Heren. Lucr. means that it is the remaining vital motions which give back sense and life to the elements which of themselves have no sense. *leti limine*: a metaphor which he repeats VI 1157 and 1208: comp. too III 681 *vitae cum limen inimus*; culex 221 *cum te Restitui superis leti iam limine ab ipso.* 961 *possit* i.e. the *animans* of 944: possibly the ms. reading may be defended; but the change made is very slight. *conlecta mente*: Lamb. compares Cic. Tusc. disp. IV 78 *quid est autem se ipsum colligere nisi dissupatas animi partis rursum in suum locum cogere.* 962 *quo decursum*: same metaphor III 1042 *obit decurso lumine vitae*; IV 1196 *spatium decurrere amoris*: same metaphor and constr. Cic. Tusc. I 15 *nunc video calcem, ad quam cum sit decursum, nihil sit praeterea extimescendum.* *ire et abire*, a studied assonance; see n. to I 826: *abire* a euphemism for *abire e vita*: Petron. sat. 42 *abiit ad plures*: Lucr. more than once uses *ire* almost in this sense; *obire* is really similar.

963—972: there is pain when the elements are disordered in their seats, pleasure when they return to their place; therefore first-beginnings themselves can feel neither pleasure nor pain, since they are not formed of other first-beginnings, whose motions can be disturbed so as to give them pain, or rearranged so as to give them pleasure. 963 *Praĕterea*: Lach. has a most obscure note; the only thing it clearly shews is that he

quite fails to apprehend the poet's meaning, when he reads here *Propterea.* *dolor*, and therefore sense; pain in any thing that has sense is only a disordering of its elements. 966 *voluptas*, and therefore sense. 967 *Scire* cet.: therefore pleasure and pain being but the right or wrong ordering of elements, the elements themselves which are each one and indivisible, are formed of no elements which can be moved, so as to give pleasure or pain; and therefore they have no sense. 969 *non sunt ex ullis* cet. i.e. ipsa non constant ex ullis principiis: Lachmann's punctuation of this v. and explanation of the whole passage is to me quite incomprehensible; he must have quite misunderstood both sense and construction here. *sunt ex*: I 61 *ex illis sunt omnia primis*; II 458 *Si minus omnibu' sunt e levibus atque rutundis*; Cic. orator 215 *creticus qui est e longa et brevi et longa..Nam* (paean) *aut e longa est et tribus brevibus ..aut e totidem brevibus et longa...Est* (spondeus) *e longis duabus...Ne iambus quidem, qui est e brevi et longa...aut etiam dactylus qui est e longa et duabus brevibus.* 970 *quorum* cet. i.e. ut dolorem capiant novitate motus eorum; see n. to V 873 *quare.* *motus* is of course the gen. 972 *Haut igitur* cet. because pain and pleasure are sense. The argument may really be a begging of the question, but is perfectly intelligible: these vss. too, 963—972, clearly form a new paragraph quite distinct from the former: we might compare with them the famous saying of Hippocrates de nat. hom. 2 ἐγὼ δέ φημι, εἰ ἓν ἦν ἄνθρωπος, οὐδέποτ' ἂν ἤλγεε· οὐδὲ γὰρ ἂν ἦν ὑφ' ὅτου ἀλγήσειε ἓν ἐών.

973—990: if sense must be given to the elements of living things in order that these things may have sense, then must their elements have the same feelings and reasoning powers which men have; they will thus have to consist of other elements, and these again of others on to infinity: if all this is absurd, and you cannot conceive laughing or thinking atoms, why not allow generally things that have sense to come from elements without sense?—See what is said on I 919 920: Mr Poste observes that, as among the ὁμοιομερῆ Aristotle, and prob. Anaxagoras, included the sensories, this may account for Lucr. introducing the subject a second time, when he is treating, as here, of the sensories. 974 *si iam*: see n. to I 968. 975 *propritim*, another ἅπαξ λεγόμ.: on these adverbs see n. to I 20 *generatim*; but the form is curious, as analogy would lead us to expect a form *proprītus.* The argument is, if sense generally must come from sense, then the special sense of man should come from elements specially endowed with similar sense, the power of laughing, crying, thinking. In this paragraph Lucr., as his wont is, clinches so to speak his refutation of the doctrine that sense must come from sentient elements, by a sarcastic appeal to common sense. 976 977 comp. I 919 920, in substance the same. 976—984 Mr Poste says 'the answer to the query would be very easy on the theory of Anaxagoras: he held the divisibility of matter including τὸ ὁμοιομερές

ad infinitum, and would reply to the querists, your elements are just like yourselves and bear the same relation to you that you do to the massive sensories of the animals that walk the earth. But talking and speculating de rerum natura are functions of the multiform compound, τὸ ἀνομοιομερές, the rational animal; not of any of his component organs in isolation.' 978 *rerum mixtura*, the way in which the elements of things are mixed to form these things. 979 *proporro*: see n. to v 312. 983 *sequar...ut sit*: *sequar* seems to have the pregnant sense of pressing the adversary and requiring him to admit, *insequar et flagitabo ut*: comp. I 980 *Hoc pacto sequar atque...quaeram.* 987 *doctis...dictis* recurs v 113: Virg. catal. 7 9 *Magni petentes docta dicta Sironis*, of his epicurean master; Enn. ann. 274 *Haud doctis dictis certantes, sed maledictis*: Plautus has *docta dicta*, *dicta docta* and *dictum doctum*; *dolis doctis*, etc. 988 *Non ex sem.* (factus). 990 *undique*=omnino: Cic. de fin. v 69 *honestatem undique perfectam atque absolutam.*

991—1022: nay we men, as well as beasts and the fruits of the earth, may be said to have our birth from heaven as father, and earth who as mother gives us food and therefore life: death too is but the going back of our elements to heaven and earth respectively: then in a moment all forms and colours and senses perish, which depend on the motions arrangements etc. of first-beginnings; even as in this our poem a few letters produce by different arrangements, etc. quite different verses.—The first part of this passage is a literal translation of a fragment from the Chrysippus of Anaxagoras' scholar Euripides, Γαῖα μεγίστη καὶ Διὸς αἰθήρ, Ὁ μὲν ἀνθρώπων καὶ θεῶν γενέτωρ, Ἡ δ' ὑγροβόλους σταγόνας νοτίας Παραδεξαμένη τίκτει θνητούς, Τίκτει δὲ βορὰν φῦλά τε θηρῶν, Ὅθεν οὐκ ἀδίκως Μήτηρ πάντων νενόμισται. Χωρεῖ δ' ὀπίσω Τὰ μὲν ἐκ γαίας φύντ' εἰς γαῖαν, Τὰ δ' ἀπ' αἰθερίου βλαστόντα γονῆς Εἰς οὐράνιον Πάλιν ἦλθε πόλον· Θνήσκει δ' οὐδὲν τῶν γιγνομένων, Διακρινόμενον δ' ἄλλο πρὸς ἄλλου Μορφὴν ἑτέραν ἀπέδειξε: it is translated by Vitruvius too at the beginning of his 8th book: *Euripides auditor Anaxagorae, quem philosophum Athenienses scaenicum appellaverunt, aera et terram eamque e caelestium imbrium conceptionibus inseminatam fetus gentium et omnium animalium in mundo procreavisse*, and so on: comp. I 250 and what is said in illustration of that similar passage about the antiquity of the doctrine that heaven is the father and earth the mother of all things. Arist. de plantis I 2 p. 817 27 expressly states that Anaxagoras taught ὅτι ἡ γῆ μήτηρ μέν ἐστι τῶν φυτῶν, ὁ δὲ ἥλιος πατήρ: Euripides repeats the same sentiment in a fragment of the Melanippe worth comparing. The whole of our passage is quite epicurean and consistent with the general argument of Lucr. though his fondness for Euripides has made him express himself in the language of Anaxagoras; with whom however as we have shewn in the first book he and Epicurus had many points of contact, points which are well brought out here. What

Lucretius means to say in his poetical language is this: so far from men and other animals requiring special sensible elements, they like every thing else on earth come from the mingling of the elements of ether and earth; and at their death these senseless elements return whence they came, to be employed afresh in producing other things: the elements are the same, it is only their motions arrangements etc. which make the difference: he then adds his favourite illustration from the letters of the alphabet. I should not say, as Zeller does from this single passage, 'hence Epicurus shares the stoic belief in a divine origin of the human race.'

991 *oriundi*: a very rare example of *i* altogether suppressed, with scarcely a parallel in the hexameter poets: *abiete ariete abiegni fluviorum principium consilium* and the like, where *i* has the power of a consonant, are common enough; but for instances like ours Lach. in his learned note has to go to the old scenic poets; and his examples are vehemently controverted by Ritschl prisc. Latin. epigr. suppl. III p. XXI: but L. Mueller de re metr. p. 249 gives *dŏmĭniă* from Lucilius, *opĕriuntur* from Laevius, *mĕlius* from Varro, as instances of *i* wholly suppressed, as here. 996 *Pabula cum praebet*: it is said to give birth to man and beast by giving them food, without which parent first and then child could not exist a moment. The poet strives to find sufficient pretext for calling earth mother. 999—1001 quoted by Lactant. inst. VII 12, who taxes Lucr. with inconsistency, 'sed victus est veritate'. 999 *Cedit* cet.: Ὅθεν δ' ἕκαστον εἰς τὸ σῶμ' ἀφίκετο, Ἐνταῦθ' ἀπελθεῖν, πνεῦμα μὲν πρὸς αἰθέρα, Τὸ σῶμα δ' εἰς γῆν, says Eur. suppl. 533, or else Moschion: Epich. p. 258 Lorenz Συνεκρίθη καὶ διεκρίθη κἀπῆλθεν ὅθεν ἦλθεν πάλιν, γᾶ μὲν εἰς γᾶν, πνεῦμα δ' ἄνω: but Anaxag. himself, fr. 8 Schorn and Mullach, τὸ μὲν πυκνὸν καὶ διερὸν καὶ ψυχρὸν καὶ τὸ ζοφερὸν ἐνθάδε συνεχώρησε, ἔνθα νῦν ἡ γῆ· τὸ δὲ ἀραιὸν καὶ τὸ θερμὸν καὶ τὸ ξηρὸν καὶ τὸ λαμπρὸν ἐξεχώρησε ἐς τὸ πρόσω τοῦ αἰθέρος. 1001 *rellatum*; but V 686 *rĕlatus*: corp. inscr. 200 81 *rellatum*, and Ter. Phorm. 21 [and Accius Didascalicon II 1 2 Mueller]: IV 761 he seems to have written *Rellicta*; which is lengthened by Lucilius also: *religio relicuus* stand of course on a different ground, as the verse requires the first syll. to be long: see n. to I 560. 1002 foll. hear Anaxagoras himself frag. 17 Schorn and Mullach, 22 Schaubach, τὸ δὲ γίνεσθαι καὶ ἀπόλλυσθαι οὐκ ὀρθῶς νομίζουσι οἱ Ἕλληνες· οὐδὲν γὰρ χρῆμα οὐδὲ γίνεται οὐδὲ ἀπόλλυται ἀλλ' ἀπὸ ἐόντων χρημάτων συμμίσγεταί τε καὶ διακρίνεται. καὶ οὕτως ἂν ὀρθῶς καλοῖεν τό τε γίνεσθαι συμμίσγεσθαι καὶ τὸ ἀπόλλυσθαι διακρίνεσθαι, an aphorism which Epicurus might have wholly adopted. 1004 *et effit ut omnes res ita* i.e. et ita fit ut omnes res cet. *effiant* occurs VI 761, *effieri* Plaut. Persa 761: Lucr. has also *confieri* often and *interfieri* more than once: with *effit ut...ita* comp. IV 944 *fit uti pars inde animai Eiciatur* i.e. inde fit uti cet.; VI 204 *Hac etiam fit uti de*

causa; 727 *Quo fit uti pacto.* **1005—1012** comp. I 767 and what precedes and follows. **1007—1009** have already occurred in substance three times: see n. to 760 foll.: they express one of the most essential of the epicurean doctrines. **1010** *penes...Corpora prima*: comp. Ulpian in Forc. *penes te amplius est quam apud te; nam apud te est quod qualiter qualiter a te tenetur; penes te est quod quodammodo a te possidetur*: [see too Draeger hist. synt. I p. 544 § 254 2.] *residere* is also an emphatic word, to be abiding, inherent: see Cic. in Forc. s. v. **1011** *quod in summis* cet. i.e. the *formae colores sensus* of 1005 1006. *in summis* contrasts with *penes*, *fluitare* with *residere.* **1013** foll. this illustration we have had again and again in words more or less like: comp. especially I 823 where *Quin etiam* introduces it and connects it with what precedes exactly as here. **1018** *discrepitant res*: VI 1105 *quia longe discrepitant res.* Observe the vagueness of *res* here, the things or results which come from the different arrangements of letters, i.e. the words and verses; whereas in the very next words *Sic ipsis in rebus* and 1022 *res*, *res* has its proper sense of material things brought into comparison with the former *res* or words; so careless is he in such matters: see n. to I 875. **1021** occurred I 685.

1023—1047: listen now to a question of vast moment. But nothing is so easy that it may not at first seem difficult; nothing so wondrous but people cease in the end to admire it. Look at the sky with sun moon and stars: what more marvellously beautiful? yet the world weary of the sight cares not now to give it a glance. Fear not therefore the novelty of the thing, but hear what I have to say; and if it be true, surrender; if false, gird yourself to the combat: the mind would fain comprehend that immensity into which it looks and in which it freely expatiates. **1024** *nova res*, that which he enters upon in the next paragraph, viz. innumerable worlds in the immensity of space. *ad auris Acc.*: Cic. pro Sest. 107 *ad populi Romani aures accidisse*: in Vatin. 4 *ad aures tuas accidat.* **1029** as *Quod mirarier* may be looked upon as an accus.: see n. to I 331: the expression does not seem harsher than Ter. Andr. 392 *nec tu ea causa minueris Haec quae facis*; hec. 616 *Sed non minuam meum consilium.* **1034** *nunc si...si nunc*: comp. V 332 *etiam quaedam nunc artes expoliuntur, Nunc etiam augescunt*; Cic. ad Q. fratr. I 3 *ego tibi irascerer, tibi ego possem irasci*; Ovid met. I 111 *Flumina iam lactis, iam flumina nectaris ibant*; Juv. VI 157 *hunc dedit olim Barbarus incestae, dedit hunc Agrippa sorori.* **1035** *poterat*: this use of the indic. is common enough: see Madv. Lat. gram. 348 c. **1038** *Quam tibi iam nemo..dignatur*: Lach. to IV 1203 *quam saepe*, cites for this use of *quam* also I 104, VI 801, 1080: comp. Cic. ad Att. IX 11 2 *quam ille haec non probare mihi quidem visus est! quam illam νεκυίαν.. timere!* *nemo, fessus* = nemo, adeo omnes fessi sunt, is idio-

matic enough; III 607 *Nec sibi enim quisquam moriens sentire videtur,... Verum deficere* cet.; IV 610 *cernere nemo Saepem ultra potis est, at voces accipere extra*; [Mart. IX 79 7.] *satiate*: this form recurs V 39 and 1391; it is found also in prose, in Livy Pliny and others. 1041 *Expuere* cet.: still bolder is its application in Ter. eun. 406 *Quasi ubi illam expueret miseriam ex animo.* 1043 *Dede manus*: *da manus* is the usual expression; but comp. VI 1255 *paupertate et morbo dedita morti*; [Plaut. asin. 601 *me morti dedere optas?*] So *dede neci* in Virg. geor. IV 90, Ov. her. XIV 125 and fasti IV 840; Tib. I 3 7 *cineri quae dedat odores*; Cic. pro Arch. 26 *aures suas dederet.* [Comp. also Calpurn. III 70 *Quodsi dura times etiam nunc verbera, Phylli, Tradimus ecce manus.*] *falsum* is used for a substantive, as in III 525 *convincere falsum*; IV 764 *Nec possunt falsum veris convincere rebus*: Ov. am. III 14 41 *nec quae celare parabis Insequar, et falsum muneris instar erit*: [but perhaps for *falsum* we should read *falli*: see Madv. adv. II p. 70:] comp. IV 813 *semotum fuerit longeque remotum.* With what precedes comp. the very similar language of the stoic in Cic. de nat. deor. II 96 *quod si hoc idem ex aeternis tenebris contingeret ut subito lucem aspiceremus, quaenam species caeli videretur? sed adsiduitate cotidiana et consuetudine oculorum adsuescunt animi neque admirantur neque requirunt rationes earum rerum quas semper vident, proinde quasi novitas nos magis quam magnitudo rerum debeat ad exquirendas causas excitare*; yet just above he says of Lucr. and his school *certe ita temere de mundo effutiunt, ut mihi quidem numquam hunc admirabilem caeli ornatum.. suspexisse videantur*: such different conclusions may be drawn from the same phenomena. Comp. too the auctor ad Heren. III 36; and Sen. nat. quaest. VII 1. 1047 *animi iactus*: see n. to 740 *animi iniectus*; and comp. Cic. de nat. I 54 *cuius* (dei) *operam profecto non desideraretis, si inmensam et interminatam in omnis partis magnitudinem regionum videretis, in quam se iniciens animus et intendens ita late longeque peregrinatur, ut nullam tamen oram ultimi videat in qua possit insistere.* The argument could dispense with these last four vss. and their style appears to me to have something constrained in it. I am disposed to look upon them as one of those subsequent additions of the poet, of which I have spoken above vol. I p. 28 foll., and elsewhere.

1048—1066: space then being unlimited on all sides and atoms infinite in number, it is not likely this world should be the only one in being, since it was formed by a mere chance combination of atoms: there are then in other parts of space other like combinations of matter. 1050 *res ipsaque*: Lucr. often has *que* in the third place, not only with prepositions and their cases, even dissyllabic prepos. as V 1205 *super stellisque*: but in other instances, as here and 48, III 662, 939, 962, IV 273, 824 *errorem vitareque*, 1010 *persectantes visaeque*, V 680, VI 957, 1007, 1085; also IV 79 and 104 by I think probable corrections: with some

poets this usage is common enough: comp. Catul. 57 2 *Mamurrae pathicoque*; Cic. de div. I 20 *Templa deumque*; Tib. I 10 51 *Rusticus e lucoque*; Ovid fasti II 177 *furit Iuno, formam mutatque puellae*; met. II 89 *dum resque sinit*; VII 204 *sua convulsaque robora terra*; X 143 *inque ferarum Concilio medius, turba volucrumque sedebat*; her. XX 226 *Amplius utque*; and the frequency with which these two poets put it in the 2nd half of the pentameter: Sen. Oct. 361 *ereptam pelagoque*; 363 *ingens geminatque nefas*: Virgil on the contrary has *que* in the third place only with monosyl. prepos. and their cases and with *iamque namque* according to Wagner geor. I 142: II 1099 Lucr. has *ve* too in the third place, *Omnibus inve locis*, and IV 616 *plus operaeve*: comp. Hor. od. IV 2 21 *Flebili sponsae iuvenemve.* Perhaps Lucretius' carelessness in the position of *quoque* is like in principle; see n. to V 192: *itaque, igitur, enim* he also often puts late in the sentence; see n. to I 419. On the other hand it is to be noted that, like the older poets generally, he always has the copulae *et, nec, nam* in the first place; while Virgil and the later poets often transgress this rule. **1051** *elucet* thus coupled by a simple *et* with *docui* and *vociferatur* is somewhat awkward: one would have expected a word meaning 'to make clear.' **1053** *Undique vorsum*: 188 *Sursus enim versus*: see Forc. for similar instances from Cicero Caesar and the best writers, *deorsum versus, utroque vorsum, quoquoversus* and the like: Gellius XII 13 20 has *undique versum.* **1054** *innumero numero*: 1086 *sed numero magis innumerali*; III 779 *Innumero numero*; VI 485 *Innumerabilem enim numerum*; Plautus in his own epitaph, *Et numeri innumeri simul omnes collacrumarunt*, which Ritschl parergon p. 42 refers to the great variety of Plautus' metres: *in number numberless* and *numbers numberless* are common in our old writers: not unlike are *innuptae nuptiae, mentes dementes, iniustaque iusta* of other poets; and similar in effect are I 98 *casta inceste*, III 869 *Mortalem vitam mors cum inmortalis ademit*, V 121 *Immortalia mortali sermone.*—With the above vss. comp. Cic. de nat. deor. I 54 *in hac igitur inmensitate latitudinum longitudinum altitudinum infinita vis innumerabilium volitat atomorum* cet. **1058** *natura*, by natural causes, not by divine power or necessity. **1059** verses like this apparently wanting a caesura are not uncommon in Lucr. and other poets: comp. VI 197 *Conplerunt, magno indignantur murmure clausi*; in three other instances, III 612 715, V 165, the word *inmortalis* occurs; so that in our verse and all the others it may be presumed that the preposition of the compound formed a quasi caesura; for in fact the Latins seem to have made no difference in sound between *in mortali* and *inmortali*: Lucilius ventures to write *Scipiadae magno improbus obiciebat Asellus*; and Horace *Vestrum praetor, is intestabilis et sacer esto*; and in the new corp. inscr. Lat. we find on the one hand *ab iuraverit, ad tribuere* 7 times, *ex actum, in doucimus* and many such like; on the other hand *aquo, amatre, adeum, desuo, ex-*

formula, *inmanu*, *obeas* and a hundred such like. There is one other instance, III 258, *Nunc ea quo pacto inter sese mixta quibusque*, where the v. may have prompted a Latin to pronounce *interse se.* Lachmann's distinction between a short vowel as in *forte*, and a long vowel as in *magno* or an *m* as in *quid enim inmortalibus*, so that our present verse shall not be a legitimate one, appears to rest on no reason. 1060 *tem. inc. fr.*: comp. V 1002 *temere incassum frustra mare saepe coortum*; VI 319 *Nec temere omnino plane*: he delights in these poetical tautologies, for in their application here these words are synonymes: but before him Cic. Arat. 32 *Sed frustra temere a vulgo ratione sine ulla.* 1061 *colarunt*, have strained as through a *colum* the atoms fitted to unite: this word is well illustrated by N. P. Howard, Journ. of phil. I p. 129, from the Greek: Epic. in Diog. X 73 τοὺς κόσμους δεῖ καὶ πᾶσαν σύγκρισιν πεπερασμένην...νομίζειν γεγονέναι ἀπὸ τοῦ ἀπείρου, πάντων τούτων ἐκ συστροφῶν ἰδίων ἀποκεκριμένων κ.τ.λ.: he compares too the ὥσπερ διαττώμενα (σώματα) of Diog. IX 31 with respect to Leucippus: V 422—431 should be compared with this passage, both in their general agreement with it and partial divergence. *quae coniecta*: 1108 *Semina quae magnum iaculando contulit omne.* 1062 *exordia* here and V 430 has precisely the same force as Virg. ecl. VI 33 *ut his exordia primis Omnia* cet. i.e. the rudimentary formations of earth sea heaven etc. 1066 *avido* cet.: V 470 *Omnia sic avido complexu cetera saepsit.* There are not only other worlds, but innumerable other worlds, as he proves in the next paragraphs: with this and what follows comp. Epic. himself in Diog. Laert. X 45 ἀλλὰ μὴν καὶ κόσμοι ἄπειροί εἰσιν, εἴθ' ὅμοιοι τούτῳ εἴτ' ἀνόμοιοι.

1067—1076: nay when there is matter and place ready, and nothing to hinder, and countless atoms with the same powers as those which have formed our world, you must admit that there are other worlds with men beasts etc.—A mere variation of the last paragraph. 1069 *confieri*: this form recurs several times: see also n. to 1004. 1070 *et*, 1072 *que*: *et* followed by *que* is rare, but is found Hor. sat. I 3 139 and even in Cicero: see de fin. V 64 and Madvig who there quotes other instances: and in Livy, as XXXVIII 38 12 *et ex iis praesidia deducito, utique recte tradantur curato*: but the reading is of course uncertain. *si tanta*, and that this is so has been proved. 1072 *Visque eadem et natura manet*, and there is no conceivable reason for questioning this. Comp. with the above Epic. l. l. αἵ τε γὰρ ἄτομοι ἄπειροι οὖσαι, ὡς ἄρτι ἀπεδείχθη, φέρονται καὶ πορρωτάτω· οὐ γὰρ κατηνάλωνται αἱ τοιαῦται ἄτομοι ἐξ ὧν ἂν γένοιτο κόσμος ἢ ὑφ' ὧν ἂν ποιηθείη, οὔτ' εἰς ἕνα οὔτ' εἰς πεπερασμένους, οὔθ' ὅσοι τοιοῦτοι, οὔθ' ὅσοι διάφοροι τούτῳ.

1077—1089: again there is nothing that is sole in its kind, man beast bird or fish; and so is it also with heavens earths seas suns and

moons; they are all without number; since they have all birth and death on the same conditions as each thing here on earth. **1077** foll. comp. the very similar argument in 532 foll. Epicurus' friend Metrodorus in Plut. de plac. phil. I 5 says pointedly ἄτοπον εἶναι ἐν μεγάλῳ πεδίῳ ἕνα στάχυν γεννηθῆναι καὶ ἕνα κόσμον ἐν τῷ ἀπείρῳ. **1080** *in primis anim.*=primum in animalibus: comp. IV 478 *primis ab sensibus* and the like: this use of the adj. *primis* is very common in the poets, esp. Virgil: see Wagn. quaest. Virg. XXVIII 3 b and 4 and 6: see n. to III 250 *postremis datur ossibus*=postremo datur oss.; quite the same in principle is II 217 and 226 *rectum per inane*, where see note. *inclute Memmi* recurs V 8: comp. Emped. 439 κλυτὲ κοῦρε Θεανοῦς Πυθαγόρεώ τε. 1086 *num. innum.*: see n. to 1054. **1087** *depactus terminus alte*: the sense and metaphor are the same as those of the often recurring *alte terminus haerens.* **1089** *genus omne*, whether men beasts birds or fishes: *hic* i.e. in this earth. *generatimst abundans*: III 396 *est animus ..coercens.* Lach. quotes Manil. I 858 *Ignibus usque adeo natura est omnis abundans*: comp. also V 389 *Has erit et similis tribuens olor aureus artes;* 397 *Quisquis erit tali cupiens sub tempore vitam*: and see Draeger hist. syntax § 142. **1087—1089** the argument seems to be, since all these things are mortal and had a beginning, they must be subject to the same conditions as other mortal things: in fact, as repeated by Plutarch Cicero and others, Epicurus taught that innumerable worlds were daily coming into being and daily perishing.

1090—1104: the knowledge of these things will rid you of fear of the gods; for how could any being rule these numberless heavens and earths? how could he hurl his bolts at once in so many places, bolts which often destroy the innocent and miss the wicked? **1090** *si teneas*: see note to I 327. **1092** *sua sponte*: though Lucr. elsewhere and the poets generally for obvious reasons say *sponte sua*: *sua sponte* is the common order in prose: yet Augustus in his res gestae V 4 and Livy XXVII 11 3 have *sponte sua*: [see Draeger hist. synt. I p. 519 f.] *dis expers*: VI 1181 *expertia somno*: he oftener has the gen. which became the regular constr.: Sall. Cat. 33 1 *plerique patriae, sed omnes fama atque fortunis expertes sumus*: [see Ussing to Plaut. Amph. 706.] It is worth comparing these vss. and the cognate passages such as V 86 foll. VI 62—79, also III 14 foll., V 8 *deus ille fuit deus*, with Cic. Tusc. disp. I 48 *soleo saepe mirari nonnullorum insolentiam philosophorum qui naturae cognitionem admirantur eiusque inventori et principi gratias exultantes agunt eumque venerantur ut deum; liberatos enim se per eum dicunt gravissimis dominis, terrore sempiterno et diurno ac nocturno metu. quo terrore? quo metu? quae est anus tam delira quae timeat ista, quae vos videlicet, si physica non didicissetis, timeretis?* But Lucr. was no haruspex: he meant what he said, and thought that others did the same. Cicero's philosophical works were all written within a few years after

this poem was published, and they afford many proofs that Cicero was familiar with its language: it was not his usage to quote the actual words of contemporaries, profuse as he is in his citations from the older writers. **1093—1104** are very similar to the longer passage VI 387—422. **1095** *profundi* is a subst. agreeing with *immensi*: see n. to I 1002. **1096** *Indu*: see n. to I 82. *moderanter* a ἅπαξ λεγόμ.: *moderanter habere habenas*=moderari habenas: [comp. Cic. Lael. 45 *quam laxissimas habenas habere amicitiae.* 'moderanter: Lucr., Nouat. Trinit. 3, id. ib. 29 *ad decreta ipsius se moderanter temperare*,' Mélanges Gr. Rom. III p. 476.] **1097** *caelos* in the plur. to express all the different heavens in the universe, just as *we* translate the *terras* of the next v. by 'earths' for a like purpose; otherwise the plur. is quite unknown to classical writers: Serv. Aen. I 331 *secundum Epicureos qui plures volunt esse caelos*: Ennius has *caelus profundus*, shewing that the sing. was once both masc. and neut. as in the case of so many other nouns. [Arnob. III 9 has *innumeros caelos*: Trimalchio in Petron. 39 says *caelus hic* and *totus caelus*.] *caeli* for *caelum* was a hebraism of the Church writers. With *caelos* comp. IV 291 *aeribus binis*, V 645 *aeribus*. **1098** *suffire* seems to have the sense of 'to warm' here only: IV 1175 *se suffit odoribus*, it has its proper force. **1100** *caeli serena* is opposed to the *nubibus*: the *sonitus* arises in the *nubibus* and shakes the *caeli serena* at a distance; for VI 99 *Nec fit enim sonitus caeli de parte serena*, and so 400 foll.: with this compare VI 96 *Principio tonitru quatiuntur caerula caeli Propterea quia concurrunt sublime volantes Aetheriae nubes*; comp. too 285 *Quem gravis insequitur sonitus, displosa repente Opprimere ut caeli videatur templa*, and 387 *Quod si Iuppiter atque alii fulgentia divi Terrifico quatiunt sonitu caelestia templa*: the *sonitus* or thunderclap is confounded with the thunder itself; as in Ter. eun. 590, imitated by Lucr., *At quem deum! qui templa caeli summa sonitu concutit.* **1101** *et aedis* cet.: comp. VI 417 foll. and Cicero cited there, whom Lactant. inst. III 17 compares with our passage: *in libris consulatus sui eadem dixit quae Lucretius*, Nam pater cet. **1102** *in deserta recedens*: comp. VI 396. **1103** *quod saepe* cet. enlarged upon VI 390—395. **1104** Seneca nat. quaest. II 46 is asked by the epicurean Lucilius *quare Iuppiter aut ferienda transit aut innoxia ferit?* and prudently evades the question.

1105—1174: and after our world was born, many elements were ever added to it so as to increase all its parts, until it attained its full growth: even thus things which you see growing take in more elements as food than they give forth, until they reach their maturity; then they gradually decay, and exhale more than they take into their veins; until from inward rarefaction and outward blows they perish completely: even thus will our world perish: already our earth has begun to fail, and can no longer produce what once it did; tillers and vinedressers spend their labour in vain and regret the olden time, not knowing that the earth

like everything else must come to its end. **1105** *Multaque* cet. is a continuation of the argument broken off at 1089, especially of that contained in 1058—1063, the intervening vss. 1090—1104 containing one of his many impassioned appeals. *diemque Primigenum—coortum* is a mere poetical repetition of the preceding words. **1106** *Primigenum* is a rare word, for which lexicons only cite Avienus besides Lucr.: perhaps he wished to translate the Homeric *πρωτόγονος*. **1107** *corpora* and *Semina* are of course synonymes. **1110** *Appareret*: I find no other example of the use of this verb which is here very expressive: Faber compares the Greek *προσκτᾶσθαι*. *caeli domus*: VI 358 *Concutitur caeli domus*: he may have been thinking of Ennius' strange *divum domus altisonum cael.*: Aen. X 1 *domus omnipotentis Olympi*: but Lucretius' expression implies more: Hor. od. II 12 8 *Fulgens contremuit domus Saturni veteris.* **1111** *consurgeret*: one can hardly say whether this is simply for *surgeret*, or, what is more graphic, for *undique circum surgeret*, or even *surgeret una cum caelo*. This formation of our world is much more fully delineated V 449—508: above, 1058—1063, he described the *exordia* of this world; here he pictures its completion. **1112** *plagis*: these blows of atoms are, as we have so often seen before, the chief cause of the formation and conservation of things, by enabling the atoms to clash and try all kinds of union, until some suitable one is found. **1114** *umor, terra, ignes, aether* are used here loosely and poetically for the elements fitted by their shape etc. to assist in forming water earth etc. **1115** *procudunt*, as III 1081 *Nec nova vivendo procuditur ulla voluptas*; V 850 *propagando procudere saecla*; 856 *propagando procudere prolem. aetheraque aether*: for *aeraque aer*, since the poet here employs Empedocles for his own purpose, just as 991 foll. he made use of Anaxagoras and Euripides: Emped. 270 *πυρὶ δ' αὐξάνεται πῦρ, Αὔξει δὲ χθὼν μὲν σφέτερον δέμας αἰθέρα δ' αἰθήρ*: in form his vss. are rather a reminiscence of the more famous 321 *Γαίῃ μὲν γὰρ γαῖαν ὀπώπαμεν ὕδατι δ' ὕδωρ Αἰθέρι δ' αἰθέρα δῖον, ἀτὰρ πυρὶ πῦρ ἀΐδηλον*: elsewhere too Emped. thus uses *αἰθήρ*, as 105 *Πῦρ καὶ ὕδωρ καὶ γαῖα καὶ αἰθέρος ἤπιον ὕψος*, and 216. Lucr. has probably only followed Empedocles here; but see n. to I 250 *aether*, where it is shewn that he sometimes uses the word strictly, sometimes for the upper regions generally and the seat of rain: thus in one place he has *aetheriae nubes*, in another *innubilus aether*, in a third *aetherias auras*. **1116** *Donique*: this form of *donec* recurs V 708, 723, 997, always before a vowel: Lucr. may in one or other place have written *doneque*, which in one place, V 708, A pr. m. exhibits. See too Val. Rose in Hermes II p. 468, who there and in his edition restores to Vitruvius *doneque* four times for the *denique* of mss.; but he does not state the case quite fairly between *donique* and *doneque*, our oldest authority, an inscription, having as Huebner shews, *donique*. He quotes however three instances of *doneque* from Tischendorf's cod. Palat. of the oldest version of the Gos-

pels, the Amiatinus etc. substituting *donec*. Vitruv. IX 1 11 has *donique cum* = donique = donicum which occurs several times in Plautus. *perfica*=perfectrix: a goddess *Perfica* is mentioned by Arnobius. 1119 *venas* seem here and elsewhere to include the arteries as well as veins. 1121 *refrenat*: a favourite word of his. 1122 *adauctu*, used by Lucr. alone of good writers. 1126 *dispessa*: see notes 1: it must agree with *quaecumque*, and refer to things which have attained the fulness of their growth: the atoms are *dispersa*, but not the *res*: for form comp. Gellius XV 15 *Plautus in milite glorioso* (360) a *littera in* e *mutata per compositi vocabuli morem* dispessis *dicit* cet. 1127 *vescitur* is quite suitable here: eats, i.e. takes in as food. 1129 *manus dandum est*: see n. to I 111: the infin. after *manus dandum est* would seem like the infin. after *Confugient* in III 765. 1133 *res amplior...et latior*, with reference to 1126 *dispessa*: for involved arrangement of words see n. to III 843. 1135 *modo* has reference, as Lach. says, to *augmine adempto*; but *modo* used of present or future time is rare: see Forc. who quotes Ter. ad. 289 *modo dolores, mea tu, occipiunt primulum*, and the remark of Donatus *evidenter hic* modo *temporis praesentis adverbium est*: comp. also Livy XXVI 15 13 *modo prohiberi etiam se, si id vellet, senatus consulto diceret*. *modō*, as IV 1181 *Una modō*: it is also long, as Lach. shews, in Plautus Terence Lucilius and Cic. Arat. frag. 8 *Huic non una modo caput*. *dispargit*: III 539 and IV 895 *dispargitur*; III 661 *conspargere*; V 371 *exspargi*; VI 525 *aspargine*: II 33 *conspergunt* mss. of Lucr.; but Macrob. sat. VI 2 *conspargunt*, perhaps rightly: Lucr. has also *contractans*, etc.; Augustus, somewhat of a purist in such matters, twice in his res gestae writes *consacravi*. 1137 *proquam*: III 199 *parvissima corpora proquam...ita*; VI 11 *proquam posset*: the word seems not to be found out of Lucr.: Lach. to VI 11 'aeque Latina sunt *pro ut, prae ut, pro quam, prae quam*, neque ab his differunt *praeter quam, post quam, ante quam, super quam*'. 1138 *tantum* answers to *proquam*, as III 200 *ita*. 1139 *cibus, cibus, cibus* may be compared with the instances given in n. to 955 *vincere saepe, Vincere*: the designed effect is the same, to obtain emphasis by iteration. 1140 *fulcire cibus*: Hor. sat. II 3 153 *Deficient inopem venae te, ni cibus atque Ingens accedit stomacho fultura ruenti*; Sen. epist. 95 22 *dare cibum saepius et vino fulcire venas cadentes*; 68 *alius frequenti cibo fulcit*. 1144 *omnia*: see n. to I 15 *capta...quamque*. 1146 *tuditantia*=crebro tundentia, and recurs III 394: Enn. ann. 138 *tuditantes*.

1148 *Sic igitur* cet.: the world will have the fate of all mortal things: it has attained its full growth and begun to decay, and must finally perish.—A new paragraph ought not to commence here; as the preceding illustrations have been merely given with reference to this, and it is a direct continuation of the argument of 1105 foll. more especially of 1116 foll. from which it cannot be separated. 1149 *Expugnata* cet.: keep-

ing up the metaphor of the *moenia*, which expression has been explained in I and will be further illustrated in V. *dabunt labem, ruinas*: see n. to IV 41: *dare ruinas* occurs several times in Lucr. for *ruere*; *labem* appears to be here used in its primary sense of the sinking and giving way of the ground. **1150** foll. Martha p. 346 argues that this picture of the world and its products may have been suggested to Lucr. by the wretched state of Italy, the decay of agriculture, etc. **1150** *Iamque adeo*: *adeo* strengthens the *iam*, even now, now already; it is a favourite expression of Virgil: Wagner quaest. XXVI 4 cites Aen. II 567, V 268, 864, VIII 585, XI 275, 487. **1151** *anim. parva*: the *vermiculi* and the like, referred to more than once above; comp. too V 797 *Multaque nunc etiam existunt animalia terris Imbribus et calido solis concreta vapore. quae cuncta* cet. as told at length V 780 foll. **1152** *dedit...partu*: Aen. I 274 *geminam partu dabit Ilia prolem.* **1153** *superne*: a favourite word of Lucr., generally with him meaning 'overhead': here and in one or two other places it has the force of *desuper*: in Livy it frequently has the same sense, as XXIV 39 4, 47 3, XXVIII 3, 7, XXX 10 13; and Sen. dial. I 2 1; Suet. Tib. 39. **1154** *Aurea...funis*: Gellius XIII 21 (20) 21 *Lucretius aeque auribus inserviens* funem *feminino genere appellavit in hisce versibus* Haut cet. *cum dicere usitatius manente numero posset* Aureus e caelo cet.: see too Quintil. inst. I 6 6. Lucr. alludes no doubt to the *σειρὴ χρυσείη* of Homer, but probably also to some stoical allegorising of the same: we know from Marcus Aurel., Eustathius p. 695 at beg. and others that the stoics connected it with their *εἱμαρμένη*; and Themistius orat. 32 p. 363 c proves that it was used in the way hinted at by Lucr.: ὁ φιλότεκνος ἀξιέπαινον πάθος ἐστὶ καὶ οὐκ ἔοικε τῷ φιλοχρημάτῳ ἢ τῷ φιλαργύρῳ. ἐκεῖνα μὲν γὰρ τὰ ὀνόματα εἰκότως παρὰ τοῖς ἀνθρώποις ὀνείδη λέγεται καὶ ἔστιν· οὐ γὰρ ποιεῖ αὐτὰ ἡ φύσις, ἀλλ' ἡ μοχθηρία ἡ ἡμετέρα. τοῦτο δὲ ἄνωθεν αὐτῇ ἐνδέδοται ἐκ τοῦ οὐρανοῦ καὶ ἐξῆπται ἐκείνης ἀτεχνῶς τῆς χρυσῆς καὶ ἀρρήκτου σειρᾶς, δι' ἧς ξυρράπτουσα ἀεὶ καὶ ξυγκολλῶσα τῷ φθίνοντι τὸ φυόμενον οὐκ ἀπολισθαίνειν ἐᾷ εἰς τὸ μὴ εἶναι: Heracl. alleg. Hom. ch. 36 gives another stoical explanation of the *σειρή*. **1159** *fetus* are the *arborei fetus* or *fructus*: he thus enumerates corn, vines, fruits of trees and pastures, the four chief products of the earth: comp. V 783 and 786: thus too Virg. geor. I 54 *Hic segetes, illic veniunt felicius uvae, Arborei fetus alibi atque iniussa virescunt Gramina*; but his *Arborei* leaves no ambiguity: 1163 *fetus* is more general. **1162** *suppeditati* is most simply taken as *mare supped.* in I 230, where see note, and possibly II 568 *unde omnia suppeditantur*: our wants scarcely supplied by the tilled lands: otherwise *arvis* may be the dat. and *supped.* have its more usual force, as VI 1066 *Ut mihi multa parum genere ex hoc suppeditentur*: we are scarcely supplied in sufficient numbers, our numbers scarcely suffice for the tillage of the lands: [comp. Lucan I 29 *desuntque manus poscentibus arvis.*] **1163** shews how this is: they are so

niggardly of their products, and only let these grow after great exertion on our parts: *aug. lab. fetus*=exactly 1160 *vix nostro grandescunt aucta labore.* *labore* occurs by itself in Cic. pro Sex. Roscio 88 *ut quaestum nosset nullum, fructum autem eum solum quem labore peperisset.* [1164 *caput quassans*: significative of sorrow or anger: Plaut. asin. 400 *quassanti capite incedit*; Aen. VII 292; XII 894; Val. Flacc. I 528 *Adfremit his quassatque caput*; Caecil. 271 *Sic quassante capite tristes incedunt.*] **1165** *manuum labores*: Ovid met. IV 39 *Utile opus manuum*: comp. too I 209 *manibus melioris reddere fetus*; Sall. Cat. 37 7 *iuventus quae in agris manuum mercede inopiam toleraverat*; Cic. pro Marc. 11 joins *opere et manu factum.* **1166** for the arrangement of the words see n. to I 358; and Livy XXIX 26 4 *sed et bellum bello secundum priori ut atrocius Romanis videretur*; and Hor. sat. II 6 80 *Rusticus urbanum murem mus paupere fertur Accepisse cavo, veterem vetus hospes amicum*, where the words are meant to smell of the 'infacetum rus'. **1171** *viĕtae*, as also in Terence: Hor. epod. 12 7 *viĕtis.* *vet. viet.*: Ter. eun. 688 *vietus vetus veternosus senex.* **1172** *momen*: the metaphor seems to be from the *momentum* or sway of the balance. *caelumque fatigat*: Lach. compares Phaedrus IV 20 (19) 24 *Caelum fatigas sordido periurio*: this use of *fatigo* is very common in Latin; IV 1239 *divom numen sortisque fatigant.* **1173** *Nec tenet*: III 649 *Nec tenet amissam laevam* cet.; 1070 *morbi quia causam non tenet*; VI 83 *est ratio caeli speciesque tenenda.* **1174** *ire Ad capulum*: Plautus uses *capuli decus* and *capularis* in jest for one near death. Paulus Festi and Nonius make the word *capulum*, and the latter explains it as 'sarcofagum, id est sepulchrum': in this sense Apul. met. IV 18 *ibi capulos carie et vetustate semitectos, quis inhabitabant pulverei et iam cinerosi mortui, passim..reseramus*: but Stat. Theb. III 361 *dum funera portant, Dum capulo nondum manus excidit*; Varro ap. Nonium p. 157 *Propter cunam capulum positum Nutrix tradit pollinctori*; and Serv. Aen. XI 64 says of *feretrum* 'Latine capulus dicitur'; Placidi gloss. '*capuli*, lecti funerei vel rogi in modum arae structi; est autem *capulus* masculini generis'. *vetusto* seems harsh as an epithet of *spatio*; yet it recurs III 774 *aetatis spatio ne fessa vetusto*, and V 827 *mulier spatio defessa vetusto*; so that it seems a mere periphrasis for *vetustate.*

BOOK III

1—30: he addresses Epicurus as his father and guide, who had dispelled the darkness of error, explained the whole nature of things, revealed the gods and their blest abodes, and destroyed the belief in Acheron. 4 *Ficta* is the older form, the *t* being softened into *s* in *fixus*: Diomedes I p. 377 11 *reperimus enim* fictus *et* fixus; *Scaurus de*

vita sua 'sagittis' inquit 'confictus' cet. *pedum pono* cet.: Ovid met. II 871 *Falsa pedum primis vestigia ponit in undis*; Hor. sat. II 6 101 *ponit uterque In locuplete domo vestigia*; epist. I 19 21 *Libera per vacuum posui vestigia princeps, Non aliena meo pressi pede.* 5 *cupidus* answers to *quod aveo* and = quod cupio: Livy XLII 5 6 *seu praeoccupati...seu mutationis rerum cupidi seu quia non abiecti esse Romanis volebant*; IX 6 4 *incerti de fide sociorum et quod pudor praepediebat*; Ov. ex Ponto II 3 91 *Haec igitur referens et quod mea crimina...posse latere vides.* 7 *Cycnis*: its position is meant to be emphatic. 9 *patria* is said with reference to *pater*: thou, o father, like a father. *tuisque ex*: see n. to I 841. 11 *omnia, Omnia..aurea, Aurea*: comp. n. to II 955 *vincere, Vincere.* 12 *depascimur..dicta*: Eur. Med. 821 ἀποφερβόμενοι κλεινοτάταν σοφίαν. 14 *vocif.*: see n. to I 732. 17 *Discedunt* is here used in what seems its primary sense: see Forc. *video*: the walls of the world part asunder and allow me to see into the boundless void. 18 *sedesque quietae*: the μετακόσμια, which Cicero renders *intermundia*: these the ἰσονομία or *aequalis tributio* of Epicurus required to be as many as the *mundi*, that is to say innumerable: that Epic. and Lucr. believed in these *intermundia* is certain; but how they are consistent with their general system, is as difficult to comprehend as the rest of their firm belief in gods: see what is said on this question at II 646—651, and V 146 foll. and 1161 foll. 19 *Quas neque concutiunt* cet.: *Where falls not hail or rain or any snow, Nor ever wind blows loudly.* 20 *neque nix* cet.: VI 845 *Frigore..quasi concrescit*; Virg. geor. II 376 *Frigora nec tantum cana concreta pruina.* 21 *Cana cadens*: comp. Virg. geor. IV 370 *Saxosusque sonans Hypanis*; Aen. VIII 559 *inexpletus lacrimans*; Ov. met. VI 475 *patriosque lacertis Blanda tenens umeros.* *innubilus* coined by him to render Homer's ἀνέφελος, for these vss. are from Odyss. ζ 42 ὅθι φασὶ θεῶν ἕδος ἀσφαλὲς αἰεὶ Ἔμμεναι. οὔτ' ἀνέμοισι τινάσσεται οὔτε ποτ' ὄμβρῳ Δεύεται οὔτε χιὼν ἐπιπίλναται, ἀλλὰ μάλ' αἴθρη Πέπταται ἀνέφελος, λευκὴ δ' ἐπιδέδρομεν αἴγλη. 24 *delibat*: 1088 *nec delibare valemus*; comp. too VI 70 *Delibata deum per te tibi numina.* 25 *nusquam apparent*, because he has proved them not to exist. *Acher. templa*: see n. to I 120. 26 *Nec tellus*: it is not the earth which hides them, as his philosophy shews what is below as clearly as what is above the earth. 28 *voluptas..adque horror*: Petron. sat. 83 *Protogenis rudimenta cum ipsius naturae veritate certantia non sine quodam horrore tractavi.* Wak. cites Stat. Theb. I 493 *laetusque per artus Horror iit*; and Pacuvius 224 *horror percipit*: comp. also Plaut. Amph. 1118 *mihi horror membra misero percipit dictis tuis*; and Pacuv. 294 *animi horrescit, gliscit gaudium.* [29 *Percipit*: see n. to IV 729, and Ussing to Plaut. Amph. 1134.] 30 *manifesta* is in apposition with and explains *patens*: comp. 21 *Cana cadens.*

31—93: I have now to explain the real nature of the soul and to

dispel the terrors of hell which poison life: many boast they know all this, but when tried by adversity, they choose to suffer any misery rather than face death and its consequences: nay often men from this fear will commit any crime, in order to get wealth and honour, thinking that want and contempt destroy the security of life; hence civil war, hence hatred of relations; hence men often rush to death from fear of death: this fear in short is the source of all evils: and can be destroyed only by the true knowledge of nature. 31 *cunct. exor. rer.* = rerum primordia: see n. to I 55 and II 333. 34 *Quove*: see n. to I 57. 36 *claranda*: IV 777 *multaque nobis Clarandumst.* 37 *Et metus* cet.: see n. to I 78. 40 *Esse..relinquit*: Lucr. is fond of this construction: I 515 *solidum constare relinquas*; 703 *quidvis tamen esse relinquat*; VI 654 *mirari multa relinquas.* *vol. liq. pur. rel.*: Epic. in Diog. X 143 ὥστ' οὐκ ἦν ἄνευ φυσιολογίας ἀκεραίους τὰς ἡδονὰς ὑπολαμβάνειν. 42 *Tartara leti*: Virg. geor. IV 481 *intima leti Tartara*: *leti* seems a gen. of quality: see n. to V 369 *cladem pericli*; and comp. Prop. I 1 3 *mihi constantis deiecit lumina fastus.* 43 comp. Emped. 317 Αἷμα γὰρ ἀνθρώποις περικάρδιόν ἐστι νόημα: Arist. de anim. I 2 p. 405 b 6 attributes this theory to Critias, and says there that each of the elements has an advocate to claim for it to be the soul except earth; Tertull. de anima 5 assigns the doctrine to Empedocles and Critias: comp. too Cic. Tusc. I 19 for this and the next v.: there was great play of words on the connexion between *animus*, ἄνεμος, and *ventus*: see Lactant. de opif. dei XVII. [44 *si fert* cet.: Aen. VI 675 *si fert ita corde voluntas.*] 45 *Nec prosum*: see n. to I 748. *prosum*, as in 514; so *introsum* once and *rusum* three times in A and B; this suppression of *r* after a long vowel before *s* was very common: *susum* three times and *suso vorsum* occur in the sent. Minuc. corp. inscr. I 199. 51 *tamen* though they make these boasts and though they are in such misery, instead of shewing a contempt of death, they have recourse to the meanest superstitions in order to escape it. 52 *nigras* cet.: Virg. geor. IV 545 *Inferias Orphei Lethaea papavera mittes Et nigram mactabis ovem*; Aen. VI 153 *Duc nigras pecudes*; [*'recte factum esto ovibus atris tribus' in carmine devovendae urbis*: Macrob. III 9 11 cited by Wordsworth Frag. and Spec. p. 286.] 57 that Catullus has not unfrequently imitated Lucretius, is I think certain; but so far as I know, these imitations all occur in his longest poem, the marriage of Peleus and Thetis; and most of them in one section of that poem. He seems to have published his works in a collected form only a very short time before his early death which happened, as Schwabe in his recent account of his life has given good reasons for believing, within a year of the death of Lucretius. The poem in question then would appear to have been written or completed just before this publication. The apparent imitations which I have observed in Catullus' 64th poem I will now give. Compare III 57 *Nam*

verae voces tum demum pectore ab imo Eiciuntur, 81 *macrenti pectore*, VI 16 *infestis cogei saevire querellis, quae quoniam* a common Lucretian phrase, with Catullus l. l. 195 *meas audite querellas, Quas ego..proferre..Cogor..Quae quoniam verae nascuntur pectore ab imo*, 125 *imo fudisse e pectore voces*, 202 *Has postquam maesto profudit pectore voces*, 221 *laetanti pectore*: Lucr. III 834 *Omnia cum belli trepido concussa tumultu Horrida contremuere sub altis aetheris oris*, with Cat. 294 *numine..Quo tunc et tellus atque horrida contremuerunt Aequora concussitque micantia sidera mundus; sidera mundi* being a Lucretian expression: Lucr. III 304 *caecae caliginis* with Cat. 207 *caeca caligine*, both speaking of the mind: Lucr. II 581 *Illud in his obsignatum quoque rebus habere Convenit et memori mandatum mente tenere*, with Cat. 209 *Quae mandata prius constanti mente tenebat*, 231 *facito ut memori tibi condita corde Haec vigeant mandata*, 238 *Haec mandata prius constanti mente tenentem*: Lucr. II 618 *Tympana tenta tonant palmis et cymbala circum Concava raucisonoque minantur cornua cantu*, 636 *in numerum pulsarent aeribus aera*, IV 546 *Et reboat raucum regio cita barbara bombum*, with Cat. 261 *Plangebant alii proceris tympana palmis Aut tereti tenuis tinnitus aere ciebant: Multis raucisonos efflabant cornua bombos Barbaraque horribili stridebat tibia cantu*: Lucr. I 718 *magnis anfractibus aequor..Angustoque fretu rapidum mare dividit undis*, with Cat. 178 *gurgite lato..pontum truculentum ubi dividit aequor*: Lucr. I 110 *Nunc ratio nulla est restandi, nulla facultas*, with Cat. 186 *Nulla fugae ratio, nulla spes*: Lucr. I 631 *quae nullis sunt partibus aucta Non possunt ea*, III 626 *Quinque..faciundum est sensibus auctam*, 630 *animas intro duxerunt sensibus auctas*, IV 460 *Et sonitus audire..et reddere dicta tacentes*, with Cat. 165 *quae nullis sensibus auctae Nec missas audire queunt nec reddere voces*: Lucr. I 722 *Hic est vasta Charybdis* with Cat. 156 *quae vasta Charybdis*: Lucr. I 11 *genitabilis aura favoni* with Cat. 282 *Aura...tepidi, fecunda favoni*: Lucr. VI 34 *Volvere curarum tristis in pectore fluctus*, 74 *magnos irarum volvere fluctus*, with Cat. 62 *magnis curarum fluctuat undis*: Lucr. III 615 *animi mens consiliumque*, etc. with Cat. 136 *mentis Consilium.* All the passages I have cited from Catullus come in the episode of Theseus and Ariadne, beautiful in itself but singularly interrupting the theme of the poem; while the passages from Lucretius are scattered through his poem. One might surmise that this episode was filled up by the poet, when he was fresh from reading the new work of Lucretius.—I am by no means inclined to retract the above in consequence of the long polemic with which I have been honoured by Mr Julius Jessen in a recent pamphlet on this subject, p. 5—15: he will see, if he attends to my general argument, that I nowhere imply, or mean to imply, that Catullus has no reminiscences of Lucr. in other parts of his 64th poem: my words assert the very contrary; I only maintain that they are peculiarly frequent in the episode

in question. Mr Jessen's notions too of imitation in poetry are very different from mine, if he hold that it is seen less in resemblances of expression or rhythm, than in the general drift of entire passages. Again I have never seen any reason for supposing that Catullus died before the latter part of U. C. 700: Buecheler's argument is least of all convincing, as I have argued in another place, Journ. of phil. vol. 2 p. 4.

62 *Noctes——opes* = II 12 13. 64 *Non min. partem*: VI 1259 *Nec minimam partem*; 1249 *Inde bonam partem*: the same constr. is found in Cicero Caesar and Livy; and in fact *partim* is an accus. 65—67 and so by their wealth they think to put off death or at all events the thoughts of death. 65 *ferme*: see n. to I 14 *ferae* (*fere*). 67 *cunctarier* the infin. as a subst.: see n. to I 331. 68 *Unde...effugisse longeque remosse*: *ea* must be supplied to *remosse* out of *unde*: so 22 *Integit* and what precedes have the accus., while to *rident* a nomin. is understood: comp. too 1018. 69 Draeger hist. synt. § 128 shews that perf. infinitives are very common in legal and old Latin after verbs like *volo*: he says no instance of this constr. is found in Cicero Caesar Sallust and Tacitus. 71 *caedem caede accum.*: VI 1238 *cumulabat funere funus*; Cic. de off. I 116 *Africanus eloquentia cumulavit bellicam gloriam*; in Catil. I 14 *nonne etiam alio incredibili scelere hoc scelus cumulasti*; [Petron. 89 (v. 48) *Accumulat ecce liberum funus parens.*] 72 compared by Macrob. sat. VI 2 15 with Virg. geor. II 510 *gaudent perfusi sanguine fratrum.* 73 *consanguineum*: see n. to I 162. 76 *claro honore*, with the purple and other insignia of high office. 78 *Intereunt* cet.: Enn. ann. 403 *reges per regnum statuasque sepulchraque quaerunt, Aedificant nomen*; Epic. in Diog. Laert. x 149 quoted by Lach. speaks of desires neither natural nor necessary, ὡς στεφάνους καὶ ἀνδριάντων ἀναθέσεις. 80 *Percipit* cet.: Plaut. truc. II 5 14 *eius cito odium percipit*; Ter. eun. 972 *Neque agri neque urbis odium me umquam percipit.* *humanos* = homines; as 837 *Omnibus humanis*: Varro in Nonius p. 81 *Natura humanis omnia sunt paria*; Iustin. XLII 3 *primusque humanorum*; Cic. ad Att. XIII 21 5 *possum falli, ut humanus* (mss. *homo* editions); Ov. fasti II 503 *Pulcher et humano maior.* 81 Epicurus appears to have dwelt on this topic: comp. Sen. epist. 24 22 *item alio loco dicit* (Epicurus) '*quid tam ridiculum quam adpetere mortem, cum vitam inquietam tibi feceris metu mortis?*' *his adicias et illud eiusdem notae licet* '*tantam hominum imprudentiam, immo dementiam, ut quidam timore mortis cogantur ad mortem*'; 70 8 *stultitia est timore mortis mori.* 83 84 for the hiatus here, which seems the simplest remedy, comp. notes 1: Conington on Aen. x 9 *quis metus aut hos Aut hos arma sequi ferrumque lacessere suasit*, and Nettleship suggest that Virgil here had Lucr. in mind. If this be so, we can hardly expel *suadet*, or give another meaning to the *Hunc—hunc* of 83. [Comp. Cic. epist. IX 16 4 *ut Servius..facile diceret* '*hic versus Plauti non est, hic est*'. 84 *in summa*:

auct. bell. Alex. 71 *agere—postulare—interponere, in summa frustrari coepit.* See too Mayor on Juv. III 79 and index s. v.] **87—93** = II 55 —61, where see notes; and VI 35—41.

94—135: well first the mind, *animus* or *mens*, is a part of man, as much as the foot or head: some deny this and affirm the mind's sense to be a harmony or certain life-giving state of the body by which we have sense, though the mind is nowhere: they are quite wrong; for often the body is sick, while the mind is happy; the mind is wretched, when the body is well; just as the foot may be sore, when the head is whole: again the body is often asleep and without sense, while something in us is moved by various passions. Next the soul too or *anima* is in the body and no mere harmony; for often much of the body is taken away, while life continues; and often when a few particles only of heat and air quit it, life is gone; so that you see that some elements are more important for life than others: this harmony therefore is nothing. **94** *Primum*: he first shews that the *animus* is a part of the body, being in fact in the region of the heart: see 140 foll.: then 117 foll. he proves the *anima* also to be a part, being in fact spread over the whole body: see 143 foll. *animum . . mentem quam*: 99 *habitum quendam . . Harmoniam Grai quam dicunt*; 139 *Consilium quod nos animum mentemque vocamus*; 555 *homine, illius quasi quod vas esse videtur*; IV 132 *in hoc caelo qui dicitur aer.* [So Caes. bell. Gall. I 38 1 *ad occupandum Vesontionem, quod est oppidum maximum Sequanorum*; but V 11 8 *flumen quod appellatur Tamesis.*] See Lach. and comp. Cic. de leg. I 22 *animal hoc...quem vocamus hominem*; de rep. VI 21 (somn. Scip. VI 3) *illo mari, quod Atlanticum, quod magnum, quem oceanum appellatis in terris, qui tamen* cet. According to Madvig's rule, Lat. gram. 316, Cicero in our passage would have written *mentem quem* with AB; as we perhaps ought to do: 99 and IV 132 he would have agreed with Lucr., but not III 555: Lach. is to me obscure and ambiguous here; and he takes no account of I 432 *Quod quasi tertia sit numero natura reperta*, which seems to contradict his law, but agrees with Madvig's. *animum, mentem*: see n. to I 74 *mente animoque*: the words are, as Lucr. here intimates, perfect synonymes all through this book: 139 *Consilium quod nos animum mentemque vocamus* gives us a third synon. **97** *oculei*: I 230 *ingenuei*; IV 602 *vitrei*: in these places our mss. have preserved this old spelling, which doubtless Lucr. himself employed much oftener; and which appears more or less disguised in the mss. in I 1114 and V 38 *sei*, V 201 *avidei*, VI 16 *cogei*, 1195 *trucei*, 1199 *ibei*: the same diphthong is found in the middle of the word in VI 1217 *exciret*, 1221 *Exeibant.* **100** *Grai* are the Greeks who maintain this theory. *quod faciat* refers to the *habitum vitalem* or life-giving or life-supporting ἕξις. The chief of these *Grai* was Aristoxenus a pupil of Aristotle and a famous writer on music: Cic. Tusc. I 19 says *Aristoxenus musicus idemque philosophus ipsius corporis*

intentionem quandam, velut in cantu et fidibus quae harmonia dicitur; sic ex corporis totius natura et figura varios motus cieri tamquam in cantu sonos. hic ab artificio suo non recessit et tamen dixit aliquid, quod ipsum quale esset erat multo ante et dictum et explanatum a Platone: he refers apparently to Phaedo 80 foll. p. 86 foll. where the Theban Simmias asserts that the soul is ἁρμονία τις and is afterwards so triumphantly refuted by Socrates: comp. too Lactant. inst. VII 13 *quid Aristoxenus qui negavit omnino ullum esse animum, etiam cum vivit in corpore? sed sicut in fidibus ex intentione nervorum effici concordem sonum atque cantum quem musici harmoniam vocant, ita in corporibus ex compage viscerum ac vigore membrorum vim sentiendi existere*: this would connect him with his fellow-pupil Dicaearchus, a favourite of Cicero, who says of him Tusc. I 21 that he held *nihil esse omnino animum et hoc esse nomen totum inane...vimque omnem eam qua vel agamus quid vel sentiamus, in omnibus corporibus vivis aequabiliter esse fusam nec separabilem a corpore esse, quippe quae nulla sit nec sit quicquam nisi corpus unum et simplex, ita figuratum ut temperatione naturae vigeat et sentiat*; and 51 he joins the two. **106** *Saepe itaque*: to prove what I say, often then et cet. *aegret* recurs 824, *morbis cum corporis aegret,* and is hardly found elsewhere. **113** comp. Cic. Verr. V 28 *ut fusi sine mente ac sine ullo sensu iacerent.* *honustum* is too well attested for us to regard it as a corruption: Gell. II 3 3 'sic *honera*, sic *honustum* dixerunt (veteres nostri)'; and Servius to Aen. I 289: the Plautus palimpsest attests it more than once; and Mueller I see in Lucil. XIX 5 reads *honustam* for *honestam* of mss. **116** *inanis*, the vain fancies of a dream. Both the above reasons prove the *animus* to be a distinct part, not a mere state of the whole body, as Aristoxenus says.

117 *animam*: this as shewn in the next paragraph is spread over the whole body: he proceeds to prove that it, as well as the *animus*, is no harmony, because often a large portion of the body, say the arms and legs, might be taken off, and life remain, while often the smallest puncture in a more vital part will cause death.—*in membris*, 'in numero membrorum' Lamb. I take it simply for 'in corpore', as 120 *in membris vita moretur*, and elsewhere: by making it a mere harmony, they made it a nonentity. **125** *corpora, prima* of course = 127 *Semina.* **129** *moribundos des. artus*: 653 *moribundus pes*; 1033 *moribundo corpore*; Ov. her. 14 13 *ut dicant morientia 'paenitet' ora*: for rhythm Ov. ibis 125 *cruciatos spiritus artus Deserat.* **132** *ad organicos*, to musicians like Aristoxenus. *delatum Heliconi* cet. whether this name came from the muses, or whether they got it themselves from some other source and applied the general term ἁρμονία or fittingness to musical tune. *Heliconi* is abl.: see n. to I 978. **133** *in illam . . quae res*: see n. to I 15 *capta . . quamque.* **135** *habeant* = sibi habeant: the phrase, as here, generally indicates contempt; and is common enough: Cic. pro Sulla 26

sibi haberent honores, sibi imperia, sibi provincias, sibi triumphos, sibi alia praeclarae laudis insignia: *mihi* cet.; pro Flacco 104 *sibi habeant potentiam, sibi honores, sibi ceterorum commodorum summas facultates*: *liceat his* cet.; Cato 58 *habeant igitur sibi arma, sibi equos, sibi hastas, sibi clavam et pilam, sibi natationes atque cursus*: *nobis* cet.: *tibi habe* in Juv. III 187; V 118, where see Mayor; Mart. VII 48 4 has *vobis habete.* There is a contemptuous irony in these last vss. not unlike what Cicero Tusc. I 41 uses: *alter* (Aristoxenus) *ita delectatur suis cantibus ut eos etiam ad haec transferre conetur. harmoniam autem ex intervallis sonorum nosse possumus...membrorum vero situs et figura corporis vacans animo quam possit harmoniam efficere non video. sed hic quidem, quamvis eruditus sit, sicut est, haec magistro concedat Aristoteli, canere ipse doceat*: Cicero means to say his master would have taught him better on this head, though he were a better teacher of singing himself: comp. Arist. de anima I 4 at beg. *καὶ ἄλλη δέ τις δόξα παραδέδοται περὶ ψυχῆς ...ὥσπερ εὐθύνας δεδωκυῖα καὶ τοῖς ἐν κοινῷ γιγνομένοις λόγοις*, i.e., as Bernays die Dialoge des Arist. p. 14 foll. says, in his celebrated dialogue Eudemus where this theory was discussed and refuted: in p. 27 is quoted from Philoponus a very interesting fragment of this dialogue bearing on the argument mentioned by Lucr. 102 *Ut bona saepe valetudo* cet.: it concludes *εἰ τοίνυν ἡ ἀναρμοστία* (*τοῦ σώματος*) *νόσος καὶ ἀσθένεια καὶ αἶσχος, ἡ ἁρμονία ἄρα ὑγίεια καὶ ἰσχὺς καὶ κάλλος. ψυχὴ δὲ οὐδέν ἐστι τούτων, οὔτε ὑγίεια, φημί, οὔτε ἰσχὺς οὔτε κάλλος. ψυχὴν γὰρ εἶχεν καὶ ὁ Θερσίτης αἴσχιστος ὤν· οὐκ ἄρα ἐστὶν ἡ ψυχὴ ἁρμονία.* The peripatetics at this time began to make a great stir, and Lucr. appears more hostile to them than to any except the stoics: their philosophy was in most points very adverse to his. On the above question comp. 'Alex. Aphrod. de anima, p. 127 b Ald. 1534' J. E. M.

136—160: the *animus* and the *anima* make up one nature, but the *animus* is the ruling part in the whole body and is situated in the region of the heart; the *anima* being spread through the body: sometimes the *animus* feels, when the *anima* does not; but under any violent emotion we see the *anima* sympathise throughout the frame with the *animus*: the *anima* therefore is united with the *animus*, and, being moved by it, stirs the whole body. 136 *coniuncta*: the neut. as usual when referred to two subst. of different genders: but 416 *Hoc anima atque animus vincti sunt foedere semper*; IV 1009 *Accipitres . . persectantes visaeque volantes*: 66 I have obeyed Lamb. and Lach. in reading *Semota . . videntur* for *videtur*: the change is slight; but perhaps it is wrong to refuse to Lucr. the same liberty which other writers claim: Cic. pro Cluent. 146 can say *mens et animus et consilium et sententia civitatis posita est in legibus.* 140 *Idque situm* cet.: Epic. in Diog. Laert. x 66: *τὸ μέν τι ἄλογον*, i.e. the *anima*, *αὐτῆς* (*τῆς ψυχῆς*) *ἐν τῷ λοιπῷ παρεσπάρθαι σώματι, τὸ δὲ λογικὸν ἐν τῷ θώρακι, ὡς δῆλον ἔκ τε τῶν φόβων καὶ τῆς χαρᾶς.*

Arist. de part. an. II 10 p. 656 28 says that the ἀρχὴ τῶν αἰσθήσεών ἐστιν ὁ περὶ τὴν καρδίαν τόπος: so with Epicurus the *animus* was not the heart, but in or about the heart: Cic. Tusc. I 19 *aliis nec cor ipsum placet nec cerebri quandam partem esse animum, sed alii in corde, alii in cerebro dixerunt animi esse sedem et locum*: the heart had more advocates than the brain. *regione in pectoris*: Lucr. is fond of this position of the prep.: 49 *Conspectu ex hominum*; 463 *morbis in corporis*; 824 *morbis cum corporis*; 1088 *Tempore de mortis*; IV 335 *oculis in eorum*; VI 466 *ipso Vertice de montis*; 1074 *uno Corpore cum lanae*; 1265 *silanos ad aquarum*; IV 547 *validis cycni torrentibus ex Heliconis*: this idiom occurs in Virgil and in other poets, and is one of the numerous artifices of Tacitus to deciceronise the style of his annals; as III 72 *ornatum ad urbis*. **141** *Hic* cet.; comp. Epic. l. l. **142** *Laetitiae*: Cicero twice quotes from Caecilius *omnibus laetitiis*; and, ad Att. I 17 6, has himself *laetitias tuas*: Pompon. 141 *laetitias*; so V 48 *desidiaeque*. *hic ergo* is the τὸ λογικόν of Epicurus, the *consilium*, *mens* or *animus* of Lucr. **143** *per totum dissita corpus*, a translation of Epic. l. l. παρ' ὅλον τὸ ἄθροισμα παρεσπαρμένον. **144** *numen* here perhaps unites the physical sense which it has II 632 and IV 179, and the metaphorical sense of will, much as Catull. 64 204 *Adnuit invicto caelestum numine rector Quo* cet. *momen*, again the ῥοπή or sway of the balance. **145** *Idque*, the *consilium* of 139 and 140: Accius 296 *Sapimus animo, fruimur anima: sine animo anima est debilis*. **147** *Et quasi* cet.: the eye and the head may be affected without the rest of the body feeling with them, but when these are more violently assailed by disease, the rest of the body sympathises, shewing thus that it is one with them: so it is with the *animus* and *anima*. **155** *infringi linguam*: the καμ μὲν γλῶσσα ἔαγε of Sappho; for doubtless Lucr. was here thinking of her famous ode. *aboriri*: V 733 he has the unexampled form *aborisci*. **156** *sonere* recurs 873: *sonit sonunt resonit resonunt*, as well as *sonere*, occur in Ennius or other old writers. **160** *exim* is the spelling of our mss. and of the best authorities. *icit*: IV 1050 *unde icimur ictu*: the technical phrase *foedus icere* is common in the best writers: see too Ov. fasti IV 709.

161—176: the *animus* and *anima* are therefore bodily also, since they can move and direct the body; for this cannot be without touch nor touch without body: the *animus* too suffers with the body, when the latter is wounded: it must then be bodily, since it suffers from bodily weapons. **162** *Corpoream*: Epic. l. l. 63 says ὅτι ἡ ψυχὴ σῶμά ἐστι λεπτομερές κ.τ.λ. **163** comp. Aen. IV 572 *Corripit e somno corpus*. **168** *fungi*: see n. to I 440. **170** *Si*: see n. to II 80. **171** *intus* appears to belong to *disclusis*, and *adactus* is used, as Aen. IX 431 *sed viribus ensis adactus Transabiit costas*: those who would join *intus* with *adacta* might appeal to VI 23 where *intus* would go most naturally

with *receperat*: I 223 II 711 and IV 1091 *intus*, properly explained, has its proper force. 173 *Segnis*: with this might be compared Aen. X 699 *poplite Palmum Succiso volvi segnem sinit.* *in terra* is opposed to *terrae petitus*: when one is down on the ground. 176 comp. with what precedes Epic. l. l. 67 καθ' ἑαυτὸν δὲ οὐκ ἔστι νοῆσαι τὸ ἀσώματον πλὴν ἐπὶ τοῦ κενοῦ· τὸ δὲ κενὸν οὔτε ποιῆσαι οὔτε παθεῖν δύναται, ἀλλὰ κίνησιν μόνον δι' ἑαυτοῦ τοῖς σώμασι παρέχεται· ὥσθ' οἱ λέγοντες ἀσώματον εἶναι τὴν ψυχὴν ματαΐζουσιν· οὐθὲν γὰρ ἂν ἐδύνατο ποιεῖν οὔτε πάσχειν, εἰ ἦν τοιαύτη· νῦν δ' ἐναργῶς ἀμφότερα ταῦτα διαλαμβάνομεν περὶ τὴν ψυχὴν τὰ συμπτώματα.

177—230: the *animus* consists of very small round atoms, which can move with extreme celerity and ease; for nothing is so swift as thought: of visible things those which move most easily, as water, are composed of very small round elements: those of the *animus* then must be eminently subtle. Again the fineness and smallness of the substance of the *animus* and *anima* are shewn by this: after death, when they have left the body, it is not perceptibly diminished in size or weight; you may compare it with wine whose flavour is gone, or the like: the elements which compose this flavour are very minute; and their absence does not lessen the weight and bulk of the wine. 177 *animus*: it will be seen, by comparing 208 *eius* with 212 *animi natura animaeque* and the rest of the section, that here too he includes the *anima* in the term *animus*; though it is not till 421 that he tells us that when he uses one word he intends to comprise the other as well, where the one is not expressly distinguished from the other. It is his general practice, as we have often seen, to keep distinct similar words, when his argument requires it; to use them indifferently, when precision is not called for. *corpore* is here used in its most general sense for material substance. 178 *Constiterit*=constet: see n. to I 420. 184 *res ulla .. quorum*: Sall. Iug. 41 1 *abundantia earum rerum, quae prima mortales ducunt*; Cic. ad fam. XVI 4 2 *ulla in re, quod ad valetudinem opus sit*; Livy XXXII 29 5 *rebusque aliis divinis humanisque, quae per ipsos agenda erant, perfectis*: see n. to II 897 *Quarum nil rerum;* and to I 57. 186 *constare rutundis* cet.: Diog. Laert. X 66 ἀλλὰ μὴν καὶ τόδε λέγει ἐν ἄλλοις, καὶ ἐξ ἀτόμων αὐτὴν συγκεῖσθαι λειοτάτων καὶ στρογγυλωτάτων, πολλῷ τινι διαφερουσῶν τῶν τοῦ πυρός. 189 *flutat*: IV 77 *flutant* from a probable conj. of Turnebus. Macrob. sat. III 15 8 quotes from Varro's Gallus de admirandis '*in Sicilia quoque*' *inquit* '*manu capi murenas flutas, quod eae in summa aqua prae pinguedine flutentur*'. 190 and 246 *figuris*: see n. to II 385. 192 *actus*: Aen. XII 687 *Fertur in abruptum magno mons improbus actu*: Paulus Fest. p. 17 explains it as *modo motum corporis, ut histrionum et saltatorum.* 196—202 after his wont he gives an example of what we see before our eyes in order to illustrate his argument: a heap of poppy-seeds which are small and round a breath dis-

perses, a heap of stones a violent wind cannot stir. 196 *papaveris* is put out of its place at beg. of the sentence to render more vivid its contrast with 198 *lapidum*: see n. to 843 and II 250. *suspensa*: V 1069 *Suspensis . . dentibus.* 197 *tibi*: see n. to I 797. 199 *Noenu* recurs IV 712: it is simply *ne oenum* (*ne unum*), the fuller form of *non*; *ne nec neque* being the old negative particles: see n. to II 23. [Comp. Lucil. XXX 23 *si noenu molestumst*: see Mueller's note p. 267.] *proquam*: see n. to II 1137. 201 *cum pondere magno*=pondere magno, the abl. of quality: see n. to I 755. 207 *cluebit*=erit, as so often. 208 *quoque etiam*, and *quoque item, etiam quoque, item quoque* occur in Lucr. again and again: *quoque etiam* is not unknown to Cicero: de orat. I 164 *nunc vero, Crasse, mea quoque etiam causa rogo*; in Verr. III 206 *cetera, quae forsitan alii quoque etiam fecerint*: nor *etiam quoque* to Livy: in Plautus *quoque etiam* is very common: asin. 184 *et quoque etiam.* 208 *Haec quoque res,* 211 *Quod*: *quod* has here the same force as if the sentence had been introduced without any connecting particle: comp. Cic. de off. II 70 *videndumque illud est, quod, si opulentum fortunatumque defenderis, in uno illo . . manet gratia; sin autem* cet.: see n. to VI 250. 211 *sec. quies*: 939 *capis securam, stulte, quietem.* 212 *Indepta*: see n. to I 82. 213 *cernas*: see n. to I 327. 214 *Ad speciem, ad pondus*: V 569 *nil ad speciem est contractior ignis*; Cic. in Verr. (2) I 58 *vidi . . forum comitiumque adornatum ad speciem magnifico ornatu, ad sensum cogitationemque acerbo et lugubri*; Livy III 38 1 *neque ad speciem* (imminutis) *honoris insignibus*; Mela II 16 *viros benignius alit, non ad speciem tamen,...ceterum ad ferociam et numerum.* 215 *cal. vap.*: see n. to II 844. 219 *Extima membrorum circumcaesura* recurs IV 647: περικοπή sometimes has the same sense. [Comp. Arnob. III 13 *terrenorum corporum circumcaesura finitĭs.*] 221 *Quod genus est*: see n. to II 194. *Bacchi flos*: *Liberi* or *vini flos* is found in Livius Andr. Pacuvius and more than once in Plautus: curcul. 96 *Flos veteris vini naribus meis obiectust* shews that *flos* means the bouquet of the wine: comp. II 848 *nardi florem*: Pliny XIV 136 has *flos vini* for the *spuma*: see Turnebi adv. XXIX 34. 227 *rerum*: the *sucos et odorem* shew that he is speaking of the different things above mentioned, the wine, the perfume and the *aliquod corpus.*

231—257: the *animus* is made up of spirit heat air and a fourth nameless substance, the finest and most nimble that can be conceived and made of the smallest and finest atoms: from it comes the beginning of sensation which thence spreads through the several parts of the body: the least pain or hurt, if it reach to this substance, will destroy life at once. 232 foll. Epic. l. l. 63 says of the ψυχή that it is a thing προσεμφερέστατον πνεύματι θερμοῦ τινὰ κρᾶσιν ἔχοντι καὶ πῇ μὲν τούτῳ προσεμφερὲς πῇ δὲ τούτῳ (ἐκείνῳ): Lucr. expresses his πνεῦμα by *aura*, his θερμοῦ κρᾶσιν ἔχον by *mixta vapore*: *vapor* and 234 *calor* are of course

synonymes as elsewhere in Lucr.: in this slight sketch Epicurus speaking of the whole ψυχή does not mention the air, nor the fourth nameless substance; but Stob. ecl. I 41 1 and Plut. de plac. phil. IV 3 say that Epic. made the soul κρᾶμα ἐκ τεττάρων, ἐκ ποιοῦ πυρώδους, ἐκ ποιοῦ ἀερώδους, ἐκ ποιοῦ πνευματικοῦ, ἐκ τετάρτου τινὸς ἀκατονομάστου ὃ ἦν αὐτῷ αἰσθητικόν. 234 *Nec calor* cet.: Lucr. seems to have drawn this conclusion from what he saw of fire and its mode of operation. *calor quisquam*: see n. to I 1077 *Nec quisquam locus est*. *cui*: Enn. Epich. 2 *Frigori miscet calorem atque umori aritudinem*; Aen. VIII 431 *Miscebant operi*; Ov. met. II 634 *mixtoque oneri gaudebat honore*; IV 140 *fletumque cruori Miscuit*; V 638 *se mihi misceat*; XIII 866 *se tibi misceat*; Lucan I 271 *plebi miscere*. 239 'may not *mens* be right? since the mind does not allow' J. E. M. 240 *Sensiferos*: a word peculiar to Lucr. and to this book. 242 *east omnino nominis expers* and 279 *nominis haec expers vis* express the ἀκατονόμαστον of Plutarch and Stobaeus: the latter continues l. l. τὸ δ' ἀκατονόμαστον τὴν ἐν ἡμῖν ἐμποιεῖν αἴσθησιν· ἐν οὐδενὶ γὰρ τῶν ὀνομαζομένων στοιχείων εἶναι αἴσθησιν, and Plut. adv. Col. 20 says τὸ γὰρ ᾧ κρίνει καὶ μνημονεύει καὶ φιλεῖ καὶ μισεῖ καὶ ὅλως τὸ φρόνιμον καὶ λογιστικὸν ἔκ τινος φησὶν ἀκατονομάστου ποιότητος ἐπιγίνεσθαι: this fourth nameless thing must have been restricted to the central *animus*; the *anima* must have shared with it the other three: perhaps Epicurus got the notion of this τετάρτη οὐσία or quartessence from the quintessence of Aristotle. 247 *venti* here and below takes the place of the *aura* of 232 and 290: its effects are described below; but how far this *ventus, aura* or πνεῦμα differed in substance from his *aer* is not stated. 250 *postremis...ossibus*: see n. to II 217 and 1080, and comp. Aen. V 857 *Vix primos inopina quies laxaverat artus*; Aen. XI 664 *Quem telo primum, quem postremum...Deicis*; Cic. ad Att. XIII 45 1 *in qua extrema scriptum erat*; XIV 8 1 *litteras . . quibus in extremis erat*. 251 *ardor*, a strong excitement or feeling, good or bad; the epithet *contrarius* makes it here the opposite of *voluptas*. 252 *huc*, to the central position of this fourth nameless thing. 257 *Motibus* i.e. of physical pain or suffering. 252—257 it must surely have been a misapprehension of some statement of Epicurus similar to this that led to the strange assertion in Plut. de plac. phil. IV 23 that Epicurus placed καὶ τὰ πάθη καὶ τὰς αἰσθήσεις ἐν τοῖς πεπονθόσι τόποις· τὸ γὰρ ἡγεμονικὸν ἀπαθές.

258—332: these four substances have their elements so mixed together as to make up a single whole; just as in the flesh of any animal there are different substances, which yet compose a single body: the fourth nameless substance, the first source of sensation, lurks in the inmost recesses of the body and is so to speak the soul's soul, being to the soul what the soul is to the body, and supreme over both. Thus too the three other substances must be so mixed up as to form one whole,

lest their several powers acting independently should destroy sensation: every animal has in it the heat, the spirit, and the air, but one animal has more of one than of the other, and thus gets its distinctive character: the lion has more of heat, the stag of spirit or wind, the ox of air: so is it with men; their characters differ as they have more of one or of another of these: yet reason will so keep down the too great influence of any of them, that a wise man may live like a god. 258 see n. to II 1059 for rhythm. 259 *Compta*: see n. to I 950. 260 *patr. ser. eg.*: see above p. 11. 261 the constr. seems to be *summatim tangam, ut potero attingere*: such involutions are common in Lucr.: see n. to 843. 262 *principiorum* is, as always, the gen. plur. of *primordia*; therefore *princ. motibus* = suis motibus. 265 *multae vis*: see n. to II 586.
266 and 276 *Quod genus*: see n. to II 194: in both our places the illustration it introduces refers alike to what precedes and follows: comp. 327. 266 267 comp. II 680 *multa vides quibus et color et sapor una Reddita sunt cum odore* cet. and note there. 271 *ab se*: IV 468 *animus quas ab se protinus addit*, though the force of *ab se* is there slightly different. 271 272 are illustrated in the preceding paragraph. 273 274 275 and 279 280 281 notice the redundancy of words and their repetition, by which he wishes to point attention at once to the exceeding fineness and secrecy and the exceeding importance of this nameless substance. 274 *infra*=IV 112 *infra nostros sensus*: comp. too II 138 *a principiis ascendit motus et exit Paulatim nostros ad sensus*; and n. there: so that I take *infra est* to be almost a synon. of *subest.* 275 and 281 *Proporro*: see n. to V 312. 'Is not this v. strange when compared with 280? would he need the apologetic *quasi* of 280, if he had without qualification said the same thing just before?' J. E. M. 279 *tibi*: see n. to I 797. 282 *Consimili ratione*: in the same way that this fourth substance mixes with the others, yet keeps itself withdrawn and is known only by its effects; so the other three must keep themselves each one in due subordination or prominence according to the nature in which they are, lest by acting independently they should ruin one another and destroy sense. 284 i.e. aliud aliis magis subsit in hac re, magis emineat in illa re.
285 the most prominent of the three in any nature giving that nature its unity and distinguishing character; the lion having for instance more of the *calor*, the stag more of the *ventus*, and so on. But 294 foll. must be taken into consideration together with 288 foll.: we all have each of these elements, as may be seen in anger, etc.; but one generally predominates in one, another in another animal. 286 *Ni*: see n. to II 734 *Nive.* *seorsum* and *diducta* mean, if they were separate and therefore hostile. 288 *Est etenim* cet. for every mind and soul have in them all three; but 294 foll. in one animal one is more prominent, in another another; and 307 so it is with men: one man partakes more of one, another of another. *in ira Cum fervescit*: 295 *facile effervescit in ira.*

289 *ex oculis* cet.: Aen. XII 102 *oculis micat acribus ignis.* 292 *etiam quoque*: see n. to 208. 293 *fit qui*: see n. to II 547, and IV 752 *docui quoniam*; and comp. Ov. fasti I 91 *cur de caelestibus unus, Sitque quod a tergo sitque quod ante, vides?*; trist. IV 1 100 *Et tulerit me quo casus et unde, subit.* 296 *vis violenta leonum*: 8 *fortis equi vis*; IV 681 *promissa canum vis*: Lucr. delights in this and like periphrases, *animi vis animaeque potestas*; *ferri, aeris vis, plumbi potestas, tripectora tergemini vis Geryonai, rapax vis solis equorum*, etc. 297 298 *Pectora qui frem. rumpunt* cet.: Aen. VII 15 *gemitus iraeque leonum*: Heyne to Aen. XII 526 *nunc, nunc Fluctuat ira intus; rumpuntur nescia vinci Pectora*, says that the image there is taken from water boiling up, which strives to burst the vessel in which it is confined: thus in our passage the breast cannot hold the boiling billows of rage, but is ready to break: with 298 comp. also VI 34 and 74; Catull. 64 62 *magnis curarum fluctuat undis*; Aen. IV 532 *magnoque irarum fluctuat aestu*, and XII 831 *Irarum tantos volvis sub pectore fluctus*; Livy XXXV 18 6 *ingentes iam diu iras eum in pectore volvere.* 298 Ov. met. VI 609 *ardet, et iram Non capit ipsa suam Progne*; Aen. VII 466 *Nec iam se capit ipsa*: [see too Mayor on Juv. X 148.] 303 *percit*: I 212 *cimus*: where see note. 305 *perfixa*: see II 360. 306 *Inter utrosque* cet. imitated perhaps by Manil. II 240 *Inter utrumque manet Capricornus corpore mixto.* [313 *clem. aequo*: 'Sall. Cat. 50 *gravius aequo*. Sonst nur Lucr. u. Horaz' Draeger hist. synt. I p. 524.] 315 *sequacis* seems rightly explained by Creech and Forc. 'qui istam naturam sequuntur'. 316 seems modelled on Cic. Arat. 234 *Quarum ego nunc nequeo tortos evolvere cursus.* 319 *firmare* for *affirmare* is rarely found in good writers, for *confirmare* frequently in the best and elsewhere in Lucr.: but the former is one of Tacitus' many artifices of style: ann. I 81 *firmare ausim*; VI 6 *firmare solitus est.* 322 *Ut nil inpediat*: Epic. in Diog. Laert. X 135 ταῦτ' οὖν καὶ τὰ τούτοις συγγενῆ μελέτα διὰ παντός...καὶ οὐδέποτ' οὔθ' ὕπαρ οὔτ' ὄναρ διαταραχθήσῃ, ζήσῃ δ' ὡς θεὸς ἐν ἀνθρώποις· οὐθὲν γὰρ ἔοικε θνητῷ ζῴῳ ζῶν ἄνθρωπος ἐν ἀθανάτοις ἀγαθοῖς. 307—322 have pointed reference to the great stoical doctrine of the perfect apathy of the wise or good man: Lucr. concedes much to philosophy and reason; but will not allow that they efface all distinctions of natural character; comp. 319—322 with what Cicero says of Zeno that he 'omnes virtutes in ratione ponebat'; with him and his school in fact 'ipsa virtus brevissime recta ratio dici potest'.

323—349: the soul is held together by the body and in turn keeps the body in life; the one cannot be torn from the other without destruction to both, any more than its perfume can be separated from frankincense: by their mutual motions sense is kindled; nor is the body ever born nor does it grow without the soul nor continue when the soul has left it; even in the mother's womb they learn in common the motions of

life. 327 *Quod genus*, as 266 and 276, introduces an example illustrating both what precedes and what follows. 330 *Haut facile est* means of course that it is quite impossible; as 361 *Difficilest*: see n. there. 332 *consorti vita*: they are coheirs or copartners of a life, which is a *sors*, a patrimony or capital, which cannot be divided, but must be used by them in common: comp. ciris 14 *Si me iam summa sapientia pangeret arce, Quattuor antiquis quae haeredibus est data consors*, where the *arx* is the joint *sors* of the four. 333 *Nec sibi quaeque*: *suus* or *sui* with which *quisque* goes so naturally, allows of *quaeque* being said of either of two: so Cic. pro Rosc. com. 32; Livy II 7 1; X 12 3; XXVIII 20 10 *cum sibi quisque consultum sine alterius respectu vellet*; see Mayor on Juv. I 41: and so *quis* is sometimes used for *uter*; yet the negative *Nec quaeque* for *nec utra* or *nec altera* seems harsh. Terence, on the other hand, heaut. 394 *utrique ab utrisque*; Phorm. 800 *uterque utrique*=alter alteri; [Varro Men. 377 B *uterque utrumque vituperato*; Mart. VII 38 4 *alterius fiet uterque timor*.] 336 *accensus... sensus*: comp. II 943 and 959. This doctrine of Lucr. that for the production of sense and life the body is as necessary to the soul as the soul is to the body; that though sensation must begin with the *animus* and proceed to the *anima* before it can extend to the body, and the sense of the soul is more active than that of the body, yet the body feels and lives as well as the soul, is emphatically declared by Epic. in Diog. Laert. X 63 καὶ μὴν καὶ ὅτι ἔχει ἡ ψυχὴ τῆς αἰσθήσεως τὴν πλείστην αἰτίαν δεῖ κατέχειν. οὐ μὴν εἰλήφει ἂν ταύτην, εἰ μὴ ὑπὸ τοῦ λοιποῦ ἀθροίσματος ἐστεγάζετό πως· τὸ δὲ λοιπὸν ἄθροισμα παρασκευάσαν τὴν αἰτίαν ταύτην μετείληφε καὶ αὐτὸ τοιούτου συμπτώματος παρ' ἐκείνης, οὐ μέντοι πάντων ὧν ἐκείνη κέκτηται: see this same argument repeated in different words 558—579; and elsewhere in this book. 337 *Praeterea* cet.: this argument is more fully developed 445—525. 345 *Mutua* cet.: with this and 558—579 comp. Epic. l. l. 64; and with this and much that follows comp. also 65 καὶ μὴν καὶ διαλυομένου τοῦ ὅλου ἀθροίσματος ἡ ψυχὴ διασπείρεται καὶ οὐκέτι ἔχει τὰς αὐτὰς δυνάμεις οὐδὲ κινεῖται, ὥστ' οὐδ' αἴσθησιν κέκτηται. οὐ γὰρ οἷόν τε νοεῖν αὐτὴν αἰσθανομένην, μὴ ἐν τούτῳ τῷ συστήματι καὶ ταῖς κινήσεσι ταύταις χρωμένην, ὅταν τὰ στεγάζοντα καὶ περιέχοντα μὴ τοιαῦτ' ᾖ ἐν οἷς νῦν οὖσα ἔχει ταύτας τὰς κινήσεις.

350—357: to say that the body has no sense, and that the soul spread through it alone feels, is to contradict a self-evident truth: but it is said when the soul departs, the body has no sense: yes, because sense like much else is no inherent property, but an accident only. 350 *refutat*: as this cannot be really disproved, but only denied, Lambinus' *renutat* is very specious: but *refutat* may well imply 'tries to disprove' or 'thinks he disproves'. 353 *man. ver.*: not only true, but manifestly true. 354 *corpus sentire*=corporis sensus: see n. to I 331. *adferet* i.e. rationem adferet: thus we have had more than once *reddere* =

rationem reddere: comp. Cic. Tusc. disp. I 70 *credo equidem in capite, et cur credam adferre possum*; and n. to I 566 *possit reddi.* 355 *palam dedit*=palamfecit: comp. II 568 *palam est*, and n. to IV 41: *quod* is the relative. 357 *proprium*=καθ' αὑτὸ συμβεβηκός or *coniunctum*: see I 451: sense is a mere *eventum*, which comes to both body and soul by their reciprocal action one upon the other; and when this ceases, all sense ceases for both alike. Lach. I now see to be mistaken in marking off this and the next two paragraphs, as not connected with what precedes and follows: the above vss. are a manifest continuation and completion of the preceding argument; are in fact a summary of Epic. l. l. 64 διὸ ἀπαλλαγείσης τῆς ψυχῆς οὐκ ἔχει τὴν αἴσθησιν (τὸ σῶμα)· οὐ γὰρ αὐτὸ ἐν ἑαυτῷ ταύτην ἐκέκτητο τὴν δύναμιν, ἀλλ' ἑτέρῳ ἅμα συγγεγενημένῳ αὐτῷ παρεσκεύαζεν, ὃ διὰ τῆς συντελεσθείσης περὶ αὐτὸ δυνάμεως κατὰ τὴν κίνησιν σύμπτωμα αἰσθητικὸν εὐθὺς ἀποτελοῦν ἑαυτῷ, ἀπεδίδου κατὰ τὴν ὁμούρησιν καὶ συμπάθειαν καὶ ἐκείνῳ, καθάπερ εἶπον: it gets for itself and imparts in turn sense to the soul. At the same time this and succeeding paragraphs are clearly in an unfinished state, their connexion being often so loose that they might be interchanged in a variety of ways without loss to the general argument. But surely it was the poet himself who left them in this inchoate condition. 357 *in aevo*=in vita; so *ex ineunte aevo* five or six times=ex ineunte vita: we have also in Lucr. *aevi florem*; *Degitur hoc aevi*; *partem maiorem conteris aevi*; *tolerarit aevom*; *exigat aevom*; *colere aevom*; *consumit aevom*; *degebant aevom*: the poetical *aevom* having the various senses of *vita* and *aetas*; and *in aevo* being used here as *in aetate* by Plautus. 358 *quam exp. ante*: see n. to 973 *quam nascimur ante*: my correction of this v. which I now believe to be the poet's, is I think specious: *quam* was put in the margin, having become illegible and passed into *um* in the v., and the *aevo* came from *aevo* at the end of the prec. v. The body loses sense, you say: yes, certainly, it loses sense, a mere accident; just as *during life* it loses many other things, strength, beauty, etc. before the *anima* is expelled; for the sense shews that *anima* is nomin. of *expellitur*, i.e. anima nondum dimissa: a fortiore, dimissa.

359—369: the assertion that the eyes cannot see, but that the mind sees through them, as through a door, is contradicted by their sense: nay bright objects often hinder the eyes from seeing them; but this could not happen to doors; nay if eyes act as doors, we ought to see better by entirely taking away these doors. 359 foll. Sextus adv. math. VII 350 says οἱ δὲ αὐτὴν (τὴν διάνοιαν) εἶναι τὰς αἰσθήσεις, καθάπερ διά τινων ὀπῶν τῶν αἰσθητηρίων προκύπτουσαν, ἧς στάσεως ἦρξε Στράτων τε ὁ φυσικὸς καὶ Αἰνησίδημος: Lassalle Herakl. I p. 316 well compares with this what Sextus l. l. 130 says of Heraclitus, ἐν δὲ ἐγρηγορόσι πάλιν διὰ τῶν αἰσθητικῶν πόρων ὥσπερ διά τινων θυρίδων προκύψας (ὁ ἐν ἡμῖν νοῦς) καὶ τῷ περιέχοντι συμβαλὼν λογικὴν ἐνδύεται δύναμιν, and suggests that a comparison of this passage on the one hand with that quoted just above and on the

other with this of Lucr. makes it highly probable that the illustration here employed came from Heraclitus: in what relation to him Aenesidemus stood is well known; the other, the peripatetic Strato of Lampsacus who went by the name of ὁ φυσικός, seems also to have been much indebted to him. This connection in the present case will appear yet more probable, if we compare Tertull. de anima 14 near end, *non longe hoc exemplum est a Stratone et Aenesidemo et Heraclito; nam et ipsi unitatem animae tuentur quae...per sensualia variis modis emicet*: the doctrine here assailed by Lucr. is lucidly stated by Cic., Tusc. I 46 *nos enim ne nunc quidem oculis cernimus ea quae videmus; neque est enim ullus sensus in corpore, sed, ut non physici solum docent, verum etiam medici qui ista aperta et patefacta viderunt, viae quasi quaedam sunt ad oculos, ad auris, ad naris a sede animi perforatae*: he adds *animum et videre et audire, non eas partis quae quasi fenestrae sint animi*; and so Epicharmus νόος ὁρῇ καὶ νόος ἀκούει, τἆλλα κωφὰ καὶ τυφλά. **361** *Difficilest* I keep: v 526 *quid in hoc mundo sit eorum ponere certum Difficile est*: *difficile* there, and III 328 and 330 *haud facile est* really mean 'it is not possible' according to that common rhetorical device of bringing your meaning out more strongly by understating it; and this is the sense here. To be sure if you press the word *dicere*, it is possible enough to *say* this or anything else; but then *Desiperest* is equally out of place; for the wisest man may *say* it, as well as the most foolish; and indeed 'it is impossible' only means 'it is absurd': Livy VIII 40 3 *nec facile est aut rem rei aut auctorem auctori praeferre*: yet literally this is easy enough to do. **362** I now retain, though the v. is obscure and incomplete: for this sense of theirs draws on and forces (? the soul) to the very *acies* of the eyes. **364** *Lumina luminibus*, another instance of false antithesis: see n. to I 875. **367—369** he concludes his case here, as so often elsewhere, with a brief argument addressed to the common sense of men, which here, as I 915, takes the form of a sarcasm: see the instances given at I 984—987. **369** *postibus* appears to mean the door-posts together with their *fores*: so it was understood by Lactant. de opif. dei 8, where he assails this, as he terms it, *ineptissimum argumentum* of Lucr.: *quoniam evulsae cum postibus fores plus inferunt luminis*.

370—395: you must not believe what Democritus teaches, that the atoms of the soul alternate one by one with those of the body, and are therefore as many in number: they are in fact not only much smaller, but also much fewer; not enough to awaken sense through the body, which often therefore does not feel very small things that come in contact with it; they not exciting any part of the soul. **370** *possis*; see n. to I 327. **371** recurs v 622; and proves that *Democriti* goes with what follows. *Dem. sancta sententia*: Lucilius has *Valeri sententia dia*, Horace *sententia dia Catonis*. *viri* thus coupled with a proper name and without an epithet is curious; its force is much the same as that

which it has in *Arma virumque* and Aen. IV 3 *Multa viri virtus.* 372 *privis*, 389 *priva*, here and elsewhere in Lucr. are exact synonymes of *singula.* 373 *variare* is of course neuter here, as often in Lucr. This is another leading point of difference between Epicurus and Democritus, and one we should not have known of but for this passage: Arist. de anima I 5 at beg. merely says of Democritus that his ψυχή is ἐν παντὶ τῷ αἰσθανομένῳ σώματι, which would be quite as true of Epicurus', who in many recorded points agreed with him on this question as on others, such as making the soul consist of the smallest and roundest atoms. 374 *animae elementa*: VI 755 *Sed natura loci ope*: comp. too Virg. geor. II 144 *tenent oleae armentaque laeta*: the only two cases where Lucr. lengthens by the caesura a short vowel, II 27 and V 1049, occur likewise in the middle of the fourth foot. *minora*, as proved at length 179—230. 377 *dumtaxat*: see n. to II 123. 379 *Corpora* are any of these small external bodies, a grain of dust etc.; whereas *in corpore* is our body on which these fall: the word is thus used with his usual indifference to ambiguity: see n. to I 875. Then notice the *prima* of 378, which=an adv. whereas in 380 *prima ex.*=primordia; though from the turn of the sentence, you would think there was an antithesis in these two uses of *prima*, there being none whatever. There is thus no occasion to read *priva* with Bentl. in these two places, which would then give *exordia* by itself the force of *primordia* which it nowhere has in Lucr. If a grain of dust touch the body without being felt, then the distance between two atoms of the soul must be greater than this grain.

381 *Nam cet.*: Lucr. does not venture to say how few they are compared with those of the body; but these instances prove he thought the disproportion to be very great: the foot of a gnat or a grain of dust touching the body must touch thousands and thousands of atoms: if then these can often fall on the body without being felt, that is without touching any atoms of the soul, these must be vastly fewer than those of the body. But does not the body feel as well as the soul? yes; he has elaborately proved already that the one feels as well as the other, and that neither of the two can possibly feel without the other; but he has also shewn that the *initus motus* must proceed from the *anima*, and not merely from the *anima*, but from that part of it which is the *animus*, and not merely from the *animus*, but from that fourth nameless substance in it; the *anima* and *animus* then form one connected whole in the body; if therefore any atoms of the *anima* are moved they will at once communicate with the *animus*, and sense will commence and be imparted to the whole *anima*, and from the *anima* to the body which will then feel. But many atoms of the body he argues may be touched without any part of the soul being moved, and therefore without there being any commencement of sensation: see what presently follows, 391—395. *adhaesum*: this word occurs three times in Lucr. and seems to be found

nowhere else: he dearly loves these substantives in *-us*. 383 *aranei*: this contraction is forced on him by the necessity of the metre. 387 *levitate...gravatim*: see n. to II 1054: Ov. met. X 738 *male haerentem et nimia levitate caducum* (florem). 390 *et cetera* is exactly the English 'etc.': II 812 *nigrum cum et cetera sentit*; 855 *odorem—sonitum—saporem—frigus—vaporem, Cetera*. 391 *ciendum semina*: another instance of this idiom so common with him: see n. to I 111. 392 393 wrongly transposed by Marullus, and in all editions from Junt. to my second: *primordia* is put in the dependent instead of the leading clause, as so often in Lucr.: see n. to I 15: *ciendum est multa prim. corporis priusquam sem. anim., cor. nos. imm., sentiscant haec primordia concussa esse.* 393 *sentiscant*: IV 586 *sentiscere*: the word seems to occur nowhere else. 394 *tuditantia*: see n. to II 1146. 395 he seems here briefly to indicate the process spoken of at 381, that of the particles of the *anima* meeting, moving the *animus*, which excites sense, reacts on the rest of the *anima* and then on the body, thus at last exciting its sensation.

396—416: the *animus* has more power over life than the *anima*: without the *animus* the *anima* cannot remain one instant in the body, but if the former is safe, much of the latter may be cut off without destroying life: the *animus* is like the pupil of the eye, the least hurt to which destroys the sight; the *anima* is like the rest of the eyeball, much of which, not all, may be cut away and sight continue. 396 *est...coercens*: II 1089 *generatimst rebus abundans*: see n. there; and comp. Livy V 34 6 *quod quidem continens memoria sit.* *vitai claustra*: see n. to I 415. 397 *dominantior* recurs VI 238: see n. to IV 961 *divisior, distractior.* 398 *mente animoque*, 402 *mens animusque*, here as elsewhere mere pleonasms. 399 obs. *partem pars.* 401 comp. IV 924 *Aeterno corpus perfusum frigore leti.* 403 *Quamvis est*: 705 *quamvis . . eunt*; IV 426 *quamvis est.* 404 *membris* must be the parts yet left or the *truncus*; but it is very harsh, considering the *membris* of 403. 405 *aetherias*: see n. to I 250 and II 1115: when Lach. was dealing so remorselessly with the *aetheriae aurae* of Lucr. and Virgil, he ought not to have left unscathed the striking expression of Aen. VI 436 *quam vellent aethere in alto*, i.e. merely in the upper air on earth: imitated by Sen. Hipp. 501; 848; Oed. 220: and when Sen. Herc. Oet. 893 says *Superest et auras ille caelestes trahit*, an imitation of Aen. III 339 *superatne et vescitur aura*, he almost comments on I 546 *si vescitur aura Aetheria*: both Ovid and Seneca too have *aetherias auras* after Lucr. and Virgil; [and Mart. I 6 1 *Aetherias . . per auras.*] 406 *Si non omn., at*: II 1017 *Si non omnia sunt, at multo* cet.; Cic. pro Sest. 7 *ut ille . . si non omnem, at aliquam partem maeroris sui deponeret*; Catull. 54 *Othonis caput (oppido est pusillum) Et, trirustice, semilauta crura, Subtile et leve peditum Libonis, Si non omnia, displicere vellem Tibi* cet.; Lucil. I 33 Muell. *Si non amplius, at lustrum hoc protolleret*

unum. 409 *vivata potestas* recurs 558: *vivatus* is also mentioned by Festus. 410 foll. he presses the comparison: much of the *anima* may be taken away, not all: also much of the eyeball, not all. 412 *sine pernicie* is used absolutely as in 326 *Nec sine pernicie divelli posse videntur*: comp. too 347 *Discidium ut nequeat fieri sine peste maloque*: the gen. *eorum* too I now see has no proper reference to what precedes; and in other places, as III 1016, IV 43, 68, 101 and 116, is found without meaning at the end of a v. *et orbei* I now read: if *et* were absorbed in *fiet*, *oruei* would easily pass into *eoru* with a final half *m*: comp. VI 1143 *omnem* for *omnei*. We have seen in n. to 208 how often Lucretius and others have *etiam quoque*, *quoque etiam*, *quoque item* and the like; we have seen too that six times at least he has *et* for *etiam*, which is found in Cicero. Now Cic. Verr. II 1 11 has *erunt qui et in eo quoque audaciam eius reprehendant*; de leg. III 4 *quod et in iis etiam qui nunc regnant manet*: [et] Halm: Livy XXX 10 15 *deinde et propugnatoribus quoque incommodae erant*: [et] Madvig: XXXV 35 9 *Nabidi quoque et ipsi*: [et] Madvig: Prop. II 9 18 *Tunc etiam felix inter et arma pudor*; Aen. I 5 *Multa quoque et bello passus*; [Petron. 90 *ceterum ne et tecum quoque habeam rixandum.*] So we propose for Lucr.: '*that* too, the cutting it entirely away round the pupil, cannot be done to the *ball* even, without total ruin', i.e. of the whole seeing power. With position of *et orbei* comp. 233 *Nec calor est quisquam cui non sit mixtus et aer*; Horace's *non, si male nunc, et olim Sic erit*; Cic. ad Att. XIII 49 1 *multam igitur salutem et Philiae*; and for sense Lucr. VI 7 *Cuius et extincti*; Virgil's *timeo Danaos et dona ferentis*; and for sense and position Ov. met. VII 571 *aliquis tamen haurit et illas.* 413 *tantula pars media illa*: V 593 *Tantulus ille...sol.* 413 foll. here too the comparison is minutely carried out with 398 foll.

417—444: this soul and mind (we may now use the terms indifferently) have a birth and are mortal; for they are of the smallest and finest atoms, being more easily moved than anything else, even by images of the rarest things, smoke mist and the like; as these things then melt into air, so must the soul when severed from the body dissolve even more quickly: how indeed, when the body cannot keep it, could the air which is much rarer hold it together?—Martha, p. 149, thinks it probable that his 28 proofs of the soul's mortality were taken from some formal treatise. I have no doubt they were all set forth in one of the 37 books of Epicurus περὶ φύσεως. Zeller well observes that, with the stoics, the soul keeps the body together; with the epicureans, the body the soul. 417 *Nunc age*, as he now passes to a new branch of the discussion. 420 *Digna* cet.: culex 10 *Ut tibi digna tuo poliantur carmina sensu*, a manifest imitation which shews that *Digna tua* is not to be tampered with. *disponere*: I 52 *mea dona tibi studio disposta fideli*: [comp. Prop. V (IV) I 57 *Moenia* (*Munere* Muell.) *namque pio conor*

disponere versu (*versus* Muell.)] 421 *uno sub i. n.*: see n. to I 841; and comp. Livy I 36 7 *sub iisdem nominibus.. appellati sunt*; 43 9 *sub iisdem nominibus..fecit*; Ov. met. I 410 *sub eodem nomine mansit*; trist. IV 10 68 *Nomine sub nostro fabula nulla fuit*; Lucan I 405 *sub Herculeo sacratus nomine portus.* 424 *Quatenus*: see n. to II 927. *unum, coniuncta res*: see n. to 184; and I 57. 428 *nam*: see notes 1: that this is cause, not effect, is proved by 179 foll. esp. 186 *At quod mobile tanto operest, constare rutundis Perquam seminibus debet* cet. and 203 *Nunc igitur quoniam est animi natura reperta Mobilis egregie, perquam constare necessest Corporibus parvis* cet. 431 *in somnis* is thus used thirteen times by Lucr. who never once says *somnis sopiti* or the like, never indeed employs the plur. except in the phrase *in somnis*: this will shew how rash and unfounded Lachmann's alteration and note are. 433 *Nam* cet. as fully set forth in IV. 434 *Nunc igitur quoniam*: in consequence of the long parenthesis he begins the protasis afresh, instead of simply saying *Et quoniam* with reference to 425 foll.: with 425 *Principio quoniam*, 428 *nam*, 434 *Nunc igitur quoniam* comp. the precisely similar passage IV 54 *Principio quoniam*, 61 *nam*, 63 *Quae quoniam*, which Lach. should not have overlooked. [Just so Cic. epist. I 9 23 *scripsi etiam* (*nam . . ab orationibus.. delectarunt*) *scripsi igitur* cet.; XV 10 1 *quoniam id accidit, quod...*(*mirificus enim generis...*) *quoniam ergo ita accidit, ut* cet.: comp. too de orat. III 70 *et, si satis esse putatis, ea...Antonius*; *sed, si his contenti estis* cet. See Hand Turs. III p. 193.] 440 *vas quasi*: 555 *illius quasi quod vas esse videtur*, and 793, repeated V 137, *in eodem vase* of the body: so Cic. Tusc. disp. I 52 *corpus quidem quasi vas est aut aliquod animi receptaculum*; and others: thus the later Greek philosophers speak of the body as the ψυχῆς ἀγγεῖον: this use of *vas* and ἀγγεῖον is probably taken from the physiological sense of the latter: Arist. p. 521 b 6 πάντα ὅσα φύσει ὑπάρχει ὑγρὰ ἐν τῷ σώματι, ἐν ἀγγείοις ὑπάρχει, ὥσπερ καὶ αἷμα ἐν φλεψὶ καὶ μυελὸς ἐν ὀστοῖς κ.τ.λ.; 692 a 12 μαστὸς ἀγγεῖον γάλακτος; 787 a 3 ἀγγεῖα πνεύματος: hence Lucr. says *vas quasi.* 441 *Cum c. nequit*: for the indic. see n. to I 566.

445—458: again the mind is born with the body, grows with it, decays with it: in the child it is weak, in the man strong, in the aged again childish: it is natural then it should die also with the body. 445 446 are very similar to Herod. III 134 αὐξανομένῳ γὰρ τῷ σώματι συναύξονται καὶ αἱ φρένες, γηράσκοντι δὲ συγγηράσκουσι καὶ ἐς τὰ πρήγματα πάντα ἀπαμβλύνονται, whether Atossa learnt it from Democedes or Herodotus from Democritus: comp. Arnob. II 7. 448 in a frag. of Metrodorus, vol. Hercul. VI col. 7, ἐπεὶ γὰρ ἡ ψυχὴ μεικρῷ σώματι παρατείνουσα κατὰ τὴν παιδικὴν...ν αὔξεται, he is speaking of the same thing. 449 *Inde ubi robustis adolevit viribus aetas*, 451 *Post ubi iam validis quassatum est viribus*

aevi: 'Hor. sat. I 9 34 adoleverit aetas' J. E. M.; where Kirchner cites Livy I 4 8; Aen. XII 438. Wak. well compares Virg. geor. II 362, 367 *Ac dum prima novis adolescit frondibus aetas, Inde ubi iam validis amplexae stirpibus ulmos*; for in what precedes and follows Virgil shews that his mind was saturated with the verses of Lucr.: comp. 363 *se laetus ad auras Palmes agit laxis per purum immissus habenis* with V 786 *Arboribusque datumst...per auras Crescendi magnum inmissis certamen habenis*: 360 *contemnere ventos Adsuescant*, 365 *Ipsa acie nondum* cet. with II 448 *Prima acie constant ictus contemnere sueta*: 351 *Qui saxo super atque ingentis pondere testae Urgerent* with III 892 *saxi, Urgerive superne obtritum pondere terrae*: 324 *genitalia semina*, 325—327 *Tum pater—fetus*, 328 *Avia tum resonant avibus virgulta canoris*, 331 *Laxant arva sinus, superat tener omnibus umor, Inque novos soles audent se gramina tuto Credere* and 47 *Sponte sua quae se tollunt in luminis oras*, 336—345 followed by the Lucretian *Quod superest*, with V 851 *genitalia semina* in a different sense, I 250 foll. *Postremo pereunt imbres, ubi eos pater aether* cet., 256 *Frondiferasque novis avibus canere undique silvas*, I 809 *tener umor*, V 806 *umor superabat in arvis*, 771 *Quod superest*, 780 *Nunc redeo ad mundi novitatem et mollia terrae Arva, novo fetu quid primum in luminis oras Tollere et incertis crerint committere ventis*, and then follows the description of the early world of which Virgil's is a summary: 310 *Praesertim si tempestas...glomeratque ferens incendia ventus* with II 32 and V 1395 *Praesertim cum tempestas*, IV 871 *glomerataque multa vaporis Corpora quae stomacho praebent incendia nostro*, the words like, the meaning quite different: 260 *Excoquere et magnos scrobibus concidere montis*, 295 *Multa virum volvens durando saecula vincit*, 297 *media ipsa* with I 201 *Transire et magnos manibus divellere montis Multaque vivendo vitalia vincere saecla*, V 905 *media ipsa*: 291 *auras aetherias*, 287 *in vacuum* Lucretian expressions: 281 *ac late fluctuat omnis Aere renidenti tellus* with II 325 *totaque circum Aere renidescit tellus*: 250 *ad digitos lentescit habendo* with I 312 *Anulus in digito subter tenuatur habendo*: 246 *At sapor indicium faciet manifestus et ora Tristia temptantum sensu torquebit amaro* with II 401 *foedo pertorquent ora sapore*, IV 634 *triste et amarumst*: 217 *Quae tenuem exhalat nebulam fumosque volucris* with V 253 *Pulveris exhalat nebulam nubesque volantis*: 209 *Antiquasque domos avium* with I 18 *Frondiferasque domos avium*: 165 *argenti rivos aerisque metalla Ostendit venis atque auro plurima fluxit; Haec genus acre virum* with V 1255 *Manabat venis ferventibus...argenti rivus et auri, Aeris item et plumbi*, 862 *genus acre leonum*: 149 *atque alienis mensibus aestas* with I 181 *atque alienis partibus anni*: 151 *saeva leonum Semina* with III 741 *triste leonum Seminium*: 140 *tauri spirantes naribus ignem* with V 30 *equi spirantes naribus ignem*: 144 *Implevere; tenent oleae armentaque laeta* with the rhythm of V 202 *Possedere, tenent rupes vastaeque paludes*, and then 411 *segetem densis obducunt sentibus herbae*, 237 *validis*

terram proscinde iuvencis, 263 *id venti curant gelidaeque pruinae*, 293 *non hiemes illam, non flabra neque imbres Convellunt*, 47 *Sponte sua quae se tollunt in luminis oras*, also I 197 *multo spectata labore Degenerare tamen, ni vis humana quotannis*, 45 *Depresso incipiat iam tum mihi taurus aratro* with passages of Lucr. immediately following the one last quoted, V 206 *id natura sua vi Sentibus obducat, ni vis humana resistat Vitai causa valido consueta bidenti Ingemere et terram pressis proscindere aratris*, 212 *Sponte sua nequeant liquidas existere in auras, Et tamen interdum magno quaesita labore*, 216 *Aut subiti peremunt imbris gelidaeque pruinae Flabraque ventorum violento turbine vexant.* Just after where we began, 376 *Frigora nec tantum cana concreta pruina* with III 20 *neque nix acri concreta pruina*: 402 *Atque in se sua per vestigia volvitur annus* with IV 472 *Qui capite ipse sua in statuit vestigia sese*: 428 *Vi propria nituntur opisque haud indiga nostrae* with II 650 *Ipsa suis pollens opibus, nil indiga nostri*: 461 foll. *Si non* cet. with II 24 *Si non* cet.: 475 *Me vero primum dulces ante omnia musae Quarum sacra fero ingenti percussus amore*, 478 *Defectus solis varios lunaeque labores, Unde tremor terris*; 482 *Hiberni, vel quae tardis mora noctibus obstet* with I 923 *Percussit thyrso laudis spes magna meum cor Et simul incussit suavem mi in pectus amorem Musarum*, V 751 *Solis item quoque defectus lunaeque latebras*, VI 287 *Inde tremor terras*, V 699 *noctes hiberno tempore longae Cessant*: 490—492 *Felix qui potuit rerum cognoscere causas* cet. have been compared at I 78 with various vss. of Lucr.: 500 *Quos rami fructus, quos ipsa volentia rura Sponte tulere sua, carpsit* compared by Macrob. with V 937 *Quod sol atque imbres dederant, quod terra crearat Sponte sua, satis id* cet.: 510 *gaudent perfusi sanguine fratrum* comp. with III 72 *Crudeles gaudent in tristi funere fratris*: 523 *dulces pendent circum oscula nati* with III 895 *nec dulces occurrent oscula nati Praeripere.* 449 *viribus*, 450 *vis*, 451 *viribus*, 452 *viribus*: see n. to I 875. 450 *auctior* is used by Caesar Livy and others. 456 *ceu fumus*: 614 *vestemque relinquere* (se), *ut anguis*; where Lach. in answer to Madvig opusc. pr. p. 312, who objected to the nomin., quotes also 426 *minoribus esse Principiis factam quam liquidus umor aquai*; IV 698 *maioribus esse creatum Principiis quam vox*; as well as examples from Varro and others: 'Livy XLII 37 8 *Messenii adque Elii*; Tac. ann. XIII 19 *pari ac Nero gradu* [*Neronem* Nipp. Ritter]' J. E. M.: and so Cicero himself, writing to Caesar, ad Att. IX 11 A 3 *eandem me saluiem a te accepisse putavi quam ille.* For the usage in Greek see Dobree advers. II p. 223—226. Comp. 598 *Emanarit uti fumus diffusa animae vis*, and Sextus adv. math. IX 72 καὶ καθ' αὑτὰς δὲ διαμένουσι καὶ οὐχ, ὡς ἔλεγεν ὁ Ἐπίκουρος, ἀπολυθεῖσαι τῶν σωμάτων καπνοῦ δίκην σκίδνανται: the same metaph. in Plato Phaed. 70 ὥσπερ πνεῦμα ἢ καπνὸς διασκεδασθεῖσα. 458 *fessa fatisci* recurs V 308.

459—525: again, as the body is liable to disease, so is the mind to

cares and fears; therefore it should partake with the other of death: again when the body is ill, the mind often wanders and is senseless before death; it ought then to die, since disease reaches it; for that which feels disease must die: again in drunkenness the mind shares in the disorder of the body; but if it can thus be disordered, it may be killed by a more powerful cause: again in a fit of epilepsy, the sinews stiffen, the man foams at the mouth and the like; his mind is at the same time disordered by the attack; then when the fit is over he rises up reeling and gradually comes to his senses: when the mind then is thus tempest-tost in bodily disease, how could it battle for ever with storms in the open air? again the mind may be healed like the body; it is therefore mortal; for that which is immortal allows not of any changing or shifting of parts: the healing therefore of the mind by medicine and its suffering from disease both alike prove it to be mortal. 459 foll.: comp. what Cic. Tusc. I 79 says of Panaetius, *alteram autem adfert rationem, nihil esse quod doleat quin id aegrum esse quoque possit; quod autem in morbum cadat, id etiam interiturum; dolere autem animos, ergo etiam interire*: what precedes illustrates Lucretius' last argument.
460 *Suscipere* would come more naturally in the same clause with *videamus*: comp. 510: this then might be added to the examples given in n. to I 15. 462 *Quare* cet.: for death results from some disease or pain: 472 *Nam dolor ac morbus leti fabricator uterquest.* 464 *dementit* is found in no other writer of authority. 467 *voces* i.e. conclamantium: the custom would in this case be very appropriate in order to decide whether it were a lethargy or death; the friends were still *ad vitam revocantes*: *iam conclamatum est* could not yet be said; [comp. Prop. V 7 23 and Paley there.] 469 comp. II 977 *Et lacrimis spargunt rorantibus ora genasque.* 467—469 Ov. trist. III 3 41 *Nec dominae lacrimis in nostra cadentibus ora Accedent animae tempora parva meae? Nec mandata dabo, nec cum clamore supremo Labentes oculos condet amica manus?* 479 *tardescit* seems a ἅπαξ λεγόμ. 480 *iur. gl.*: Plaut. asin. 912 *pulcre hoc gliscit proelium.* 481 *Et iam cetera de genere hoc*, or *Cetera de genere hoc* or *horum* are favourite phrases of Lucr. imitated by Hor. sat. I 1 13. 483 *corpore in ipso* = intus in corpore: 506 *corpore in ipso* is opposed to 508 *sine corpore*: see n. to IV 736.
492 *Nimirum* cet.: Lach. well shews that here begins the explanation of the symptoms mentioned above. 493 *agens animam*: Cic. Tusc. disp. I 19 *animum autem alii animam, ut fere nostri. declarat nomen; nam et agere animam et efflare dicimus*; ad fam. VIII 13 2 *Q. Hortensius, cum has litteras scripsi, animam agebat*; Catull. 63 31 *anhelans vaga vadit animam agens.* 494 *fervescunt*, and therefore foam, with reference to *spumat*; the winds answering to the *animam.* 498 *Qua*: see n. to I 356. *Qua* cet.: i.e. qua consuerunt ferri et est illis munita via, 'a regularly made road'. 500 *docui*, in 492. 502 *reflexit*

neut.: so IV 1130 *vertunt*; V 831 *vertere cogit*; 1422 *in fructum convertere*; IV 135 *vertere* is ambiguous: VI 823 *qua derigit aestus*; 1122 *immutare coactat*: comp. also n. to II 126 *turbare* = turbari: VI 595 *movere*; 1190 *trahere*; 519 *tenere*; and I 397 *Ipse in se trahere*. *redit* is the present. 504 *vaccillans*: so spelt in Nonius p. 34 who cites Cic. Phil. III 31, and there the oldest ms. of Baiter and Halm has *vaccillante*; and so in Apul. met. V 25: I find also from a quotation in the Libri catal. of mss. 299 that a ms. of Cyprian attributed to the 9th century has *vaccillat*. This would confirm its derivation from the waddling gait of the *vacca*: Lucr. six times gives it the quantity it has in other poets; here A and B rightly have the *cc*: see n. to I 360; and comp. *mamma mămilla, offa ŏfella, tintĭno tintinnabulum, Porsenna Porsĕna, Catillus Catĭlus*; and perhaps *currus cŭrulis, quattuor quăter, littera lĭtura.*—Joh. Schmidt, Indog. Vocal. p. 104, denies its connexion with *vacca*: he says *văcillo* is from *vancillare*, derived from *văculus* = *vanculus*, and compares it with Sanscrit and Teutonic words: the unaccentuated *a* of *vacillo* is then shortened; comp. *ăcerbus, mŏlestus, conscrĭbillo*. His reasoning is acute and may be right: at the same time he does not account for the spelling with *cc*; for *bacca buccina bracca succus muccus* for *baca* etc. are mere modern barbarisms. With the above comp. what Celsus III 23 says of an epileptic fit, *inter notissimos morbos est etiam is qui comitialis vel maior nominatur. homo subito concidit, ex ore spumae moventur; deinde interposito tempore ad se redit et per se ipse consurgit*: the poet's description is probably taken directly from some medical treatise; and we need not look for minute completeness any more than in his account of the plague. 506 *Haec*, the *animus* and *anima*. 513 *traiecere*: comp. II 951 *eiecit*, and n. there. 514 *prosum* and 534 *Introsum*: see n. to 45. *prosum* seems to have the same force that *prorsus* so often has in Sallust: Cat. 15 5; 23 2; Iug. 23 1; etc.: 'in short', 'to say no more'. *hilum* in an affirmative sentence occurs also IV 515 *libella aliqua si ex parti claudicat hilum*: I find no other example; but VI 576 *perhilum* is also affirmative. 515 Priscian inst. X 8 'Lucilius in III *Conturbare animam potis est quicumque adoritur*' doubtless blunders. 519 520 so often recurring. 524 *eff. praecl.*: I 975 *effugium praecludit*, where see note. 525 *Ancipiti*, alike whether the *animus* sickens or is healed. *refutatu*, another ἅπαξ λεγόμ. in *-us*, = refutatio: see n. to I 653.

526—547: again a man often loses sense and life limb by limb; the soul then thus severed and lost must be mortal: or if you say it draws itself together from all the limbs, then the spot in which it is thus gathered ought to have a livelier sense; but this is not so; it therefore disperses, that is dies: nay grant that it can contract itself, you must admit it to be mortal, for equally in this case it gradually deadens, and sense and life quit the man. 526 *ire*: so 531 *itque*; VI 1243 *contagibus*

ibant Atque labore: somewhat similar are II 962 *quo decursum prope iam siet ire et abire*; and III 593 *labefacta videtur Ire anima.* 527 is the most effective instance of sound answering to sense, produced by the simplest means, that I know of in the whole range of Latin poetry. 529 *post inde*: he also has *post deinde*, VI 763 *post hinc*, V 1007 *tum deinde*: *post inde* is found in Enn. ann. 11, and in Cic. in Pison. 89; Plaut. trin. 768 *quid tum postea?* 531 *hoc* I take in the sense it has in IV 658 *Hoc ubi quod suave est* cet.; 1093 *Hoc facile expletur* cet.; VI 274 *Hoc ubi ventus* cet.; Virg. geor. II 425; [Catull. 44 13 *Hoc* (O, Baehrens: *Hic* G, vulg.) *me gravedo frigida et frequens tussis Quassavit*; Lucil. VI 29 *Hoc tu apte credis quemquam latrina petisse?*; Plaut. Amph. 164 *Opulento homini hoc servitus durast*; Pseud. 826 *Hoc hic quidem homines tam brevem vitam colunt*;] 807 *Hoc ego fui hodie solus obsessor fori*; rudens 388 *hoc sese excruciat animi, Quia*, cet.; Pliny epist. II 19 3 *tamen hoc quod sedent quasi debilitantur*: see Hand for other instances: it almost = ergo; and the emphatic words of the sentence *Sc.* cet. come first, as so often in Lucr.: VI 1246 *Optimus hoc leti genus ergo quisque subibat*: see n. to I 419: *hoc* might have the somewhat different meaning it has in Plaut. trin. 783 *hoc.. Suspicionem ab adulescente amoveris*: i.e. hac re. 532 *existit*: so II 796 *neque in lucem existunt primordia rerum*; V 212 *nequeant liquidas existere in auras*; [auct. bell. Afr. 7 6 *latent enim in insidiis cum equis inter convalles et subito existunt*; 69 1 *agmini eius extremo se offerunt atque ex collibus primis existunt*; Cic. Verr. IV 107 *spelunca quaedam.. qua Ditem patrem ferunt repente cum curru extitisse*: see too White.] 537 *in sensu*: 596 *in taetro tabescat odore*; II 819 *in quovis esse nitore*; III 188 *in ira Cum fervescit*; 295 *effervescit in ira*; 401 *artus in leti frigore linquit*; 826 *inque metu male habet*; Sen. epist. 74 27 *in eadem uterque forma fuit*: see n. to I 999. [Comp. also Cic. epist. II 12 3 *non essem quidem tamdiu in desiderio rerum mihi carissimarum*; XV 6 1 *qui ipsi in laude vixerunt.*] 540 *si iam libeat*: see n. to I 968. 545 *suis e partibus* I take to be the parts of the soul itself: comp. II 159 *ipsa suis e partibus una.* *obbrutescat*, a rare word: Afranius 420 has *obbrutui*: AB both spell it with one *b*; and so do the mss. of Nonius, and of Paulus Festi twice over: *opportunus* occurs in Lucr. five times: in each case either both AB or one or the other write *oportunus*: Servius to Aen. I 616 has '*applicat*: secundum praesentem usum per *d* prima syllaba scribitur: secundum antiquam orthographiam quae praepositionum ultimam litteram in vicinam mutabat, per *p*: secundum vero euphoniam per *a* tantum': i.e. only one *p* was sounded.

548—557: the mind is as much part of the man, as the ear or eye or any other sense: none of these can exist alone, but decay at once: so it is with the mind, which is as closely connected with the body as these are. 551 *atque..ve*: see notes 1; and comp. Juv. IV 76 *de qua*

citharoedus Echion Aut Glaphyrus fiat pater Ambrosiusque choraules. 553 *Sed tamen* cet. = sed in tempore quamvis parvo tamen licuntur: comp. Cic. de rep. VI 21 (somn. Scip. VI 3) *quem oceanum appellatis in terris, qui tamen tanto nomine quam sit parvus vides*; pro Sestio 140 *atque hunc tamen flagrantem invidia...semper ipse populus Romanus periculo liberavit*; [epist. II 16 7 *hoc aspersi, ut scires me tamen in stomacho solere ridere*; and perhaps Phil. I 7 *quae tamen urbs mihi coniunctissima plus una me nocte cupiens retinere non potuit*; Plaut. Stichus 99 *Bonas ut aequomst facere facitis, quom tamen absentis viros Proinde habetis quasi praesentes sint*;] Ter. eun. 170 *Tamen contemptus abs te haec habui in memoria*; and so Meineke seems rightly to explain Hor. od. I 15 19 *tamen heu serus adulteros Crines pulvere collines*, i.e. quamvis serus, tamen collines; the force of *tamen* is very much the same in IV 953, 988, 992. 555 *homine...quod vas*: see n. to 94; and for *vas* comp. 793 or V 137 *in eodem homine atque in eodem vase manere*; and n. to 440.

558—594: again body and soul depend for life one on the other: without the body the soul cannot give birth to vital motion, nor can the body without the soul continue and feel: mind and soul produce their sense-giving motions, because their atoms are kept in by the bodily frame: this they cannot do in the air; or else the air will be a body and an animal, if the soul can move in it as it moved in the body: often again in life the soul seems to fail and to be on the point of going: it is so shattered together with the body that a more violent shock would destroy it; how then could it exist a moment, not to say an eternity in the open air? therefore when the body dies, mind and soul die. 558 foll. *Denique* cet. clearly begins a new argument: in the last section he shewed that the mind, the *mens* or *animus*, not the *anima*, has a fixed seat, viz. in the breast, and cannot live away from the body, any more than the ear or eye; but there he says nothing of the body not existing without the mind. In our present section he shews the reciprocal dependence of soul and mind and of body one on the other: see what is said of Lachmann's punctuation in note 1. The soul runs through the whole body which depends on it, as much as it depends on the body. There is a striking resemblance between the language here and that of 323—349; only the conclusion proved is different. 558 *vivata potestas*: see 409 and n. there. 559 *coniuncta* is neut. plur. and must refer to *potestas* twice repeated; yet he usually employs the neut. only when the substantives are of different genders: this case is very exceptional, to which I know no parallel; and harsher than even II 400 *taetra absinthi natura ferique Centauri foedo pertorquent ora sapore*, where Lach. would prefer *pertorqueat.* *Inter se coniuncta*: 332 *consorti praedita vita.* 560 *edere*: II 443 *varios quae possint edere sensus*; 816 *variantes edere tactus.* 562 *sensibus uti*, which the soul enables it to do by

giving birth to sense-giving motions. 564 *seorsum corpore*, without *a*, appears an unusual construction. 569 *moventur motus*: a grecism. Epic. in Diog. Laert. x 66 concludes in the same way, οὐ γὰρ οἷόν τε νοεῖν αὐτὴν αἰσθανομένην, μὴ ἐν τούτῳ τῷ συστήματι καὶ ταῖς κινήσεσι ταύταις χρωμένην, ὅταν τὰ στεγάζοντα καὶ περιέχοντα μὴ τοιαῦτ' ᾖ ἐν οἷς νῦν οὖσα ἔχει ταύτας τὰς κινήσεις. 573 *Corpus enim* cet.: he has shewn again and again that reciprocity on the part of the body is necessary to enable the soul to begin to act and produce sense. 575 *in ipso corp.* i.e. intus in corpore: comp. 605, 506, 483 and n. there: that 576—590 (592—606) are to be transferred here will be manifest, when it is once pointed out. 578 *velle*: IV 518 *Iam ruere ut quaedam videantur velle.* 579 *supremo tempore* occurred I 546: VI 1192 *ad supremum denique tempus.* 581 *animo male factum est*, *male fit*, *male est* are all found in Plautus; the last in Terence. 582 *animam liquisse*: *animus* seems more usual in this phrase; as Caes. de bell. Gall. VI 38 4 *relinquit animus Sextium*; Suet. I 45 *repente animo linqui . . solebat*: Ovid heroid. II 130 *Linquor et ancillis excipienda cado.* 583 *repraehendere*: this spelling recurs 859; in three other instances AB have *repreh.*: for meaning see n. to VI 569 *reprehendere.* 585 *haec* appears to be the fem. plur., Lucr. never uses *hae*; see VI 456 *haec comprendunt*, and n. there; but *haec* may be neut. as 559 *Coniuncta.* 587 *prodita*: II 933 *aliquo tamquam partu quod proditus extet.* 588 *in aperto*: VI 817 *in apertum.* 589 *omnem . . per aevom*: II 561 *aevom . . per omnem*: see n. there. 594 *duobus* means of course the *animus* and *anima*, taken as one, and the *corpus*: comp. the conclusion of a very similar argument 348 *Ut videas quoniam coniunctast causa salutis, Coniunctam quoque naturam consistere eorum*, i.e. corporis atque animai.

595—614: when the soul leaves it the body rots away: a proof that the soul has come out of its inmost depths, to cause such utter ruin; the soul then must have been torn in pieces itself, ere it got out of the body: again a dying man feels not the soul escaping entire from him, but failing in this spot or that: if the mind were immortal, it would not mourn its dissolution, but its having to quit the cover of the body.

596 *in taet. od.*: Wak. quotes Aen. III 228 *tum vox taetrum dira inter odorem.* *taeter* is several times applied to *odor* by Lucr., still oftener to the sense of taste, sometimes to the sight. *in*: see n. to 537. 598 *uti fumus*: see Epicurus cited to 456 *ceu fumus.* 607 is the manifest sequence of the statement concluded at 606 (591). 610 *Verum* cet. i.e. omnis, understood from 607 *Nec quisquam*: see n. to II 1038.

611 *sensus alios*, the senses as well: see n. to I 116. *parti*: see n. to I 1111. 613 *Non tam*, followed not by *quam*, but 614 by *Sed magis*: comp. Plaut. trin. 688 *Nolo ego mihi te tam prospicere qui meam egestatem leves, Sed ut inops infamis ne sim*; Cic. de fin. I 1 *quidam autem non tam id reprehendunt, . . sed tantum studium tamque multam*

operam ponendam in eo non arbitrantur; and see Madvig's note, and also his emend. Liv. p. 573; where in XLIV 25, to answer *non tam quia*, he adds in 3 *ceterum*; but to me it seems that after a long quasi-parenthesis the *non tam* is answered in 5 by *magis cupiit*. 614 *ut anguis*: see n. to 456.

615—623: why too is the mind never born in the head or foot, but in one fixed spot, if not because it is only a part of the body; and the body, like other things has its own fixed organism, so that every member has in it its proper place? effect ever follows cause, nor can fire arise in water, frost in fire. 615 *animi mens*: IV 758 *Mens animi vigilat*; V 149 *animi vix mente videtur*; VI 1183 *Perturbata animi mens*; Catull. 65 4 *Mens animi*; Plaut. epid. IV 1 4 *Pavor territat mentem animi*. 616 *unis*: II 159 *ipsa, suis e partibus una*; 919 *una eademque*; V 897 *nec moribus unis*. 617 *omnibus* I now take for the dat. masc. though it is somewhat harsh. 619 *ubi quicquid* = ubi quicque: see n. to II 957. 620 *mult. partitis artubus esse*: comp. II 909 *Aut simili totis animalibus esse*; and VI 268. 618—621 'the constr. seems to be "reddita sunt cuique certa loca cet.: [redditum est cuique] ubi—creatum": then in 620 it may be a question whether *esse* depends on *possit* or is subject of *redditum est cuique* again. May not *cuique* and *quicquid* be taken not specially for parts of the body, but universally? There is a law which appoints to each several thing its place of birth, its place to abide in, and its existing with such a manifold organisation of joints, that etc.' J. E. M.—This paragraph as it stands has very many difficulties: others have seen that there is no very close connexion with what precedes and follows; and that the language much resembles 784—797. At the same time it cannot be transferred there: the argument is far from being the same: there existence of both the soul and the mind out of the body is denied: here the existence of the mind alone anywhere but in its own proper spot in the body, etc. In my earlier editions, thinking as I now think that 620 621 must refer to the organised body, I inferred that *cuique* and *quicquid* must refer to parts of the body. To this Professor Mayor's argument is directed: *cuique* and *quicquid* I allow are better taken generally; as 787 *Certum ac dispositumst ubi quicquit crescat et insit*, since the whole of that passage has apparent reference to our own. As for the constr. of 619 Prof. Mayor's may be simpler; but I took it as = certa loca reddita sunt ubi quicque nascatur et natum durare possit. I now believe that certainly one v. and probably two at least are lost after 619; and that this might shew the meaning of what is wanting: *Certum ac dispositum naturae legibu' constat. Hoc fieri nostrum quoque corpus foedere debet, Atque ita* cet. 622 623 comp. 784 *Denique in aethere non arbor, non aequore in alto Nubes esse queunt* cet. and V 128 foll. 623 *Fluminibus*: *in* understood from *in igni*: IV 98 *speculis in aqua splendoreque in omni*; 147 *ubi aspera*

saxa Aut in materiem ligni pervenit; v 128 *in aethere non arbor, non aequore salso*: Aen. v 512 *notos atque in nubila fugit.*

624—633: again if the soul is immortal and can exist alone, it must have the five senses, as imagined by writers and painters; but none of the senses can exist alone away from the body. 626 *sens. auctam*, 630 *sensibus auctas*: I 631 *quae nullis sunt partibus aucta*; Catull. 64 165 *quae nullis sensibus auctae.* 631 *sorsum* i.e. a corpore: comp. II 910 foll.: Lucr. writes indifferently *sorsum* and *seorsum*, *seorsus* and *sorsus*, when they are equally dissyllables: *seorsum* is sometimes too a trisyllable; IV 491 foll. within three or four vss. we have *seorsum*, *seorsus* and *sorsum*; and *seorsum* both trisyl. and dissyl.; v 447 448 *sorsum*, *Seorsus.* *deorsum* and *dorsum*, both found in inscriptions, may be compared: see also n. to II 202. 633 *per se* i.e. sine corpore: to *sentire* and *esse*, *animae* is understood from 632.

634—669: since life and sense pervade the whole body, if it be cut in two by a sudden stroke, the soul must also be divided; but what is divided cannot be immortal: a soldier's arm or foot or head cut off in the heat of battle will shew for a time remains of sense and motion; a serpent chopped in pieces will writhe and with the severed mouth seek to reach the other pieces of the body: now you cannot say that in each part there is an entire soul; therefore the soul has been divided, and therefore is as mortal as the body. 639 *dissicietur*: see n. to II 951. 642 *falciferos currus* recurs v 1301: in prose *falcatus.* 643 *permixta caede calentes* recurs v 1313; [comp. Catull. 64 360 *Cuius iter caesis angustans corporum acervis Alta tepefaciet permixta flumina caede.*] 647 *in...studio quod dedita*: IV 815 *quibus est in rebus deditus*; Catull. 61 101 *in mala Deditus vir adultera*; [Arnob. I 59 *quosdam in sapientia deditos.*] 648 *petessit*: v 810 *aurasque petessens*; Cic. Tusc. disp. II 62 *qui hanc petessunt nullum fugiunt dolorem*: Festus p. 206 says it is *saepius petere*; verbs of this form being generally accounted desiderative. 650 *abstraxe*: see n. to I 233. 653 *moribundus*: see n. to 129: Aen. x 341 *Dextera.. moribunda.* 658 *utrumque* is the Greek ἀμφότερον, our 'both', as VI 499 *utrumque Et nubis et aquam*; where see note: perhaps *minanti* may be retained, 'protruding from': comp. Virgil's *scopulique minantur In caelum.* 660 *ancisa* seems not to occur elsewhere: see Key's Essays p. 9: he compares it with *anquiro* and *anhelo*; and the *an* with ἀνά. [Comp. Ov. fasti III 377 *Atque ancile vocat, quod ab omni parte recisum est*; also Varro l. Lat. VII 43 *ancilia dicta ab ambecisu, quod ea arma ab utraque parte, ut Thracum, incisa.*] 662 *Ipsam se*, the mangled body and tail. 663 *ardenti*, burning with the torture. 665 *at ea* cet. which is absurd; therefore etc.

670—678: if the soul is immortal, why cannot we recollect what happened before our birth? if the mind is so changed as to forget everything, that is very like death; so that even thus you must admit that

the soul which then was, has perished, and that the one which now is, is newly made. 672 *super*=insuper: see n. to I 649. *anteactam* refers to *nascentibus*: the time before our birth. 675 *retinentia* appears to be a ἅπαξ λεγόμ. 676 *longiter*: see n. to I 525. 677 so that even granting this transmigration of souls, the soul that was before birth has really perished, and on entering a new body has really become a new and different soul: in the above passage he is evidently assailing the pythagorean metempsychosis, which Enn. ann. 10 thus states, *Ova parire solet genu' pennis condecoratum, Non animam; et post inde venit divinitu' pullis Ipsa anima.*

679—712: if the soul enters the body after it is fully formed, it should not seem to be so mixed up with it, but should have a hole to live apart in; whereas in fact it so penetrates the whole frame that the very teeth have feeling; it therefore has birth and dies; else it could not be so united with the body, nor being so united leave it entire: but if it can so enter and then spread itself over the whole body, then must it perish thus diffused; even as food transmitted into the body perishes and then furnishes out of itself another nature: thus the soul that entered will die, and another be formed out of it; thus still the soul will be mortal. 681 *vitae limen*: he has *leti limen* several times; see n. to II 960. 682 *conveniebat* i.e. *vivere* from 684. 688 *sensu partic.*: Plaut. miles 262 has the same constr., *non potuit quin sermone suo aliquem familiarium Participaverit de amica eri*; and truc. IV 2 35 *Si volebas participari.* 689 *Morbus* i.e. dentium: comp. VI 657 *alium quemvis morbi per membra dolorem? Op. e. s. p., arripit acer Saepe dolor dentes. stringor* seems a ἅπαξ λεγόμ. [696 *exsolv...ex*: 'sonst nur mit blossem Ablativ' Draeger hist. synt. I p. 475.] 700 *Tanto quique magis* is repeated V 343; so VI 460 *Quam sint quoque magis*: *quique* is of course the abl.; and seems natural enough, though no other instances are found: is it similar to *qui* in *utqui*, etc.? see n. to I 755. *cum corpore fusa*=soluta et mixta cum corpore. 701 foll. comp. 756 *Quod mutatur enim dissolvitur, interit ergo; Traiciuntur enim* cet.: but in our passage 701 is more parenthetical; and the *enim* of 702 refers directly to 700. 710 *tum* i.e. at the time when this theory supposes it to enter the body.

713—740: are atoms of the soul left behind in the dead body or not? if they are left, it cannot be immortal, since it has left parts of itself behind; if it goes out entire, whence come worms and other living things into the carcase? but if souls come from without into these myriads of creatures, do they each create a body for itself, or enter bodies already formed? then why make a body, when they are better without? disease and cold and hunger come from the body: but were it ever so useful, they could not make it: if again they entered it already made, they could not unite with it so closely as to have sensation in common.

[713 *necne*: 'Cic. Tusc. III 41 *sunt haec tua verba necne?*' Draeger hist. synt. I p. 324 D: he says these are the only two instances of *necne* in direct question.] 713 *linquontur*, 714 *lincuntur*: I 743 *relinquont*, V 1239 *relinquunt*; *lincunt* three times; *secuntur* seven times; IV 581 *locuntur*; 590 *loquontur*; 1018 *loquuntur*: all these forms probably, except perhaps the last, were in the mss. of Lucr. within a generation of his death: a proof of the excellence of our mss. in their spelling; as none even of Virgil's retains the old forms in so large a proportion as this. 715 *Haut erit ut possit*=haut poterit: 725 *est ut Quaerendum videatur*: see n. to I 620: on rhythm of v. see n. to II 1059. 717 *sinceris membris* taken as the parts of the soul would agree with 531 *Scinditur itque animae hoc quoniam natura nec uno Tempore sincera existit*: but I now take *sinc. mem.* to be 'from the untainted body', as Mr Paley suggested to me, in contrast to 719 *rancenti iam viscere*: with such use of *sinc.* comp. Virg. geor. IV 285 *Insincerus apes tulerit cruor.* *membris* has thus its usual force, the body opposed to the soul: comp. 120; 127; 439 *ex hominis membris ablata recessit*; 772 *membris exire senectis*; etc. 721 *Exos* is also found in his imitators Serenus Samonicus, and Arnobius [IV 8 *si exos genus humanum velut quidam vermiculi nasceremur*]. *perfluctuat* seems another ἅπαξ λεγ.: this is imitated by Arnob. VII 17 *fervescere vermibus et fluctuare.* 728 *ubi sint*: so *esse* in 789; 791; 795 *ubi esse et crescere possit.* 730 *neque*=non: see n. to II 23. 731 *Dicere* seems to be used here as a subst.: comp. IV 765 *meminisse iacet*; and n. to I 331: Livy XXVIII 27 3 *ad vos quemadmodum loquar nec consilium nec oratio suppeditat.* 734 *contage*: probably he wrote *contagei* or *contagi*, as IV 336 he has *contagē*: comp. V 930 *labi*, and see n. to I 978: but I 806 we find also *ut tabē nimborum.* 736 *Cum subeant*, and V 62 *Sed simulacra solere in somnis fallere mentem, Cernere cum videamur eum quem vita reliquit*, and 680 *Crescere itemque dies licet et tabescere noctes, Et minui luces, cum sumant augmina noctes*, as well as Cato de re rust. 90 *cum far insipiat, puriter facito*: in these cases *cum* with the pres. subj. or potent. seems to denote repetition; as *cum* seems clearly to be temporal in them all. Lach. says 'recte *cum subeant*: cum res ita comparata sit ut subeant corpus, esto iis sane utile sibi tum facere corpus': this to me explains nothing: Juv. XI 177 all the best mss. have *Omnia cum faciant, hilares nitidique vocantur.* 738 *utqui*: see n. to I 755.

741—775: again why do animals inherit the qualities of their parents, unless the mind like the body comes from a fixed seed? if the soul is immortal and passes into different bodies, why do not dogs and stags, hawks and doves, men and beasts exchange dispositions? they say the immortal soul changes with the change of body: false; for what changes is broken up, and therefore dies: if it be urged, a human soul always passes into a human body, a horse's into a horse, why then is not

the child as wise as the man, the foal as the horse? the mind grows young in the young body you say: then is it mortal, since it thus loses its former properties: or how can the soul come to maturity with the body, unless its partner from the beginning? or why does it seek to quit the aged body? it need not fear its ruin; for an immortal runs no risk. 741 *triste leo. Sem.*: Virg. geor. II 151 *saeva leonum Semina.* *leonum Seminium*, 746 *suo...semine seminioque*, IV 1005 *quo quaeque magis sunt aspera seminiorum*: in all *seminium* has the same meaning, the race breed stock or seed collectively to which a creature belongs; therefore *leonum seminium* is not the young of lions, but the breed or race to which lions belong: comp. IV 998 *catulorum blanda propago*; 1232 *virum suboles* and n. there; and Virg. geor. III 101 *prolemque parentum* and the like. 746 *semine seminioque*, thus joined for the sake of the much loved assonance; as 753 *fera saecla ferarum*: see n. to I 826. 750 *Hyrcano*: Cic. Tusc. I 108 *nobile autem genus canum illud scimus esse* (in Hyrcania). 754 *quod aiunt*: comp. 1008 *Hoc, ut opinor, id est, . . Quod memorant* cet. 756 comp. 701 *Quod permanat enim dissolvitur, interit ergo.* 759 *Denique* has here the force which it has in some of the instances given by Hand Tursell. II p. 266 II 1, as Ter. Phorm. 325 *Vereor ne istaec fortitudo in nervom erumpat denique*: [comp. Sen. rhet. contr. I 4 10 *adulescens, denique adulteros excita.*] 762 *prudens*: Cic. Cato 20 *temeritas est videlicet florentis aetatis, prudentia senescentis*: *prudens* is the φρόνιμος of Aristotle; see eth. Nicom. VI 9. 764 *Nec tam doctus* cet. is added because 760 *animas hominum in corpora semper Ire humana* implies *animas equorum ire in corpora equina.* *fortis equi vis*: see 8. 765 *tenerascere*: the mss. of Pliny and Celsus appear to give the form *teneresco.* 766 *Confugient* with the infin. is unusual: *confugient* i.e. ad eam sententiam, *tenerascere* cet.: comp. II 1128 *fluere adque recedere...manus dandum est*: 'is it not similar to the use of *adducor ut res ita sit*, for *adducor ut credam rem ita esse*' J. E. M. *si iam fit*: see n. to I 968. 769 *Quove modo poterit*=quaeram praeterea quo modo possit. 770 almost the same as V 847. 772 *membris...senectis*: V 886 and 896 *aetate senecta*: *senecto corpore* is found in Sallust, and *senecta aetate* in him and Plautus; Mommsen inscr. regni Neapol. 3833 *Sed . cum . te . decuit . florere . aetate . iuenta . Interieisti . et liquisti in maeroribus . matrem.*: *senecta* and *iuventa* therefore must be originally adjectives: Lach. p. 44 quotes from Varro *senescendorum hominum, adolescendi humani corporis*; and from Verrius Flaccus *rebus florescendis*: *cretus concretus suetus* etc. are often thus used; Livy Ovid and others have *requietus*; see also n. to II 363. 774 *aet. sp. vet.*: see n. to II 1174.

776—783: again how absurd that immortal souls should be present at conception and fight who shall get the mortal body, unless indeed they bargain, first come first served! 776 *conŭbia* or *conūbja*? there

is no other certain example of the word in Lucr. as v 1013 *Conubium* is introduced by conjecture: many and recently Luc. Mueller de re metr. p. 258 argue for the two quantities of the word: the latter says 'notabile quidem debuit videri tot exempla durissimae synizesis cur noluerint vitare poetae ponendo *coniugium* vel *coniugialem*. sed enim augebitur admiratio reputantibus Lucani et Senecae, qui nunquam *i* vel *u* mutarunt in consonam, versus tales *Mox ubi conubii pretium mercesque solutast. Conubia vitat: genus Amazonium scias*. porro Statius synizesin cum alibi non plus septiens admiserit, in uno vocabulo *conubii*, si productam habet semper secundam, deciens octiens eam adhibuisse erit credendus': he further shews that the old grammarians Consentius and Servius hold it to be short in such cases. Conington to Aen. I 73 observes 'the analogy of *pronubus innubus* might be pleaded as proving a variation of quantity; but no clear instance of *conŭbium* occurs except in Sidon. Apoll.': Prudentius also has it short; and Claudian, a far higher metrical authority than any of the Christians, writes epist. II 18 *Vectigal meritae conubiale lyrae*: it is quite true that in the time of all these writers the native feeling for quantity was utterly lost and did not then exist in the Roman world; it was learnt only from tradition by Claudian and Servius as much as by Prudentius or us; but in reply to Conington's pertinent remark it might be said that the word is not used at all by Tibullus and Propertius nor in his lyrics and elegiacs by Catullus; that Ovid has only the form *conubia* in his elegiacs; that the word in the singular or dat. and abl. plur. occurring so often as it does in some writers, in Virgil 8, in Statius 18 times, is always found with the *u* in thesis, never once with it in arsis, and that though Lucan who resolves the *ii* of the gen. twice uses *conubii*, Virgil Aen. IV 167 chooses to say *conscius aether Conubiis*, not *Conubii*.—But I now have the conviction that here it is *conŭbia*: I have taken *mortalis* which would be equivalent to *conūbjum* or *conūbja*, and find that Lucr. has *mortális* 23, *mórtalís* 14 times; it is therefore beyond all reasonable probability that we never should find in any poet *conúbjum*; the more so that the final syll. might be elided, as Stat. Theb. x 62 *Expers conubii et*. But what follows completes I think the demonstration that it is *conŭbium*: here in Lucr. we have *Denique conubia ad*; Stat. silv. II 3 19 *Conubia ardenti*; III 3 110 *Conubia et fidos*; V 3 241 *Conubia unus amor*; Theb. I 245 *Conubia. hanc etiam*; III 579 *Conubia et primo*; VIII 235 *Conubia, et multa*; [Nemes. cyneg. 28 *Conubia et saevo violatum crimine patrem.*] Now that *conūbja* should have only these two positions in the v., never once one of the many more convenient ones, and that the *a* should always be elided, is more than improbable: take *natură* or *aeternă* in Lucr. and see where they come in the v.: whereas *conŭbia* would naturally form the first foot, as above in Statius, and could seldom have any place but that or the 2nd foot, as here in

Lucr.; and the *a* must be elided. *conubia* is used also by Ovid amores II 7 21 for *concubitus*. 778 *immor. mor. Inn. num.*; see n. to II 1054. 779 *praeproperanter* another ἅπαξ λεγ. 780 *prim. pot.*: Fronto ad M. Caes. III 15 *huic primo ac potissimo*; Livy V 12 12 *primus ac potissimus*; XXVI 40 1 *primum ac potissimum omnium ratus*; VIII 29 2 and XXIII 28 1 *prior potiorque*; XXXVI 7 6 *prius potiusque est*; XXXIX 47 3 *nihil prius nec potius visum est*. 782 *volans adv.*: VI 742 and Aen. VI 191 *venere volantes*.

784—829: again everything has its proper place assigned to it; and thus the mind cannot be out of the body away from sinews and blood: if it could be in the head or heels or any other part of the body (and this would be much more natural than that it should be out of the body altogether) there it would still be within the man: now as mind and soul not only are in our body, but have a fixed place in that body, it is still more inconceivable that they could exist wholly out of it; therefore the soul dies with the body: nay thus to join a mortal thing with an immortal is too absurd: but if you say the soul is immortal, because it is sheltered from all that would destroy it, that is not true; not only does it suffer with the body, but it has other ailments of its own, fears for the future, remorse for the past, madness and lethargy. 784—797 recur V 128—141 with very slight differences. 784 *in aethere non* cet.: but *in aethere nubes, in aequore pisces, in arvis arbor*: comp. 622 623. 787 *ubi quicquit*=ubi quicque, as is shewn above. 790 *posset enim multo prius* i.e. in capite cet. esse, quam sine corpore oriri sola et a nervis longiter esse: on the parenthesis see n. to VI 1022: I have noted many like this in Cicero to Atticus; *atque hi* (*nolo enim te permoveri*); *ego adhuc* (*perveni enim* cet.); *omnino* (*soli enim sumus*); *quae quidem* (*ita enim* cet.); *cui tu* (*video enim* cet.): and in Livy, as *inde* (*recepti enim* cet.); *et* (*iam enim hiemps instabat*); *et* (*nam appetebat tempus*); *ipse* (*iam enim* cet.): *ceterum* (*quippe ea pignera* cet.), *ceterum* (*etenim* cet.): ad Att. IV 5 1 should run thus *quid? etiam* (*dudum enim circumrodo quod devorandum est*) *subturpicula mihi* cet. 793 *Tandem* is used here in not a common sense: comp. Plaut. miles 1062 *P. Minus ab nemine accipiet. M. heu ecastor nimis vilist tandem*; Ter. eun. 1055 *ut haeream in parte aliqua tandem apud Thaidem*; Phorm. 630 *Verum pono esse victum eum: at tandem tamen Non capitis ei res agitur, sed pecuniae.* [See Plaut. asin. 175 and Ussing there; and perhaps Cic. pro Rosc. com. 8 *quid, si tandem amplius triennium est?*] *in eodem homine* cet.: 554 *non quit sine corpore et ipso Esse homine, illius quasi quod vas esse videtur.* 794 *nostro quoque* cet.: not only is it in our body, but in that body it has its fixed place. 796 *infitiandum Posse*: *est* om. because *esse* is contained in *Posse*, according to Lachmann's rule explained at I 111. *infitiandum* is spelt with *t*: *c* is a gross error. 801 *mutua fungi* recurs IV 947: for *mutua* see n. to II 76, *fungi*

n. to I 441. Observe the poetical tautology with which in this passage after his usual fashion he enforces an important doctrine: *certum ac dispositumst*, *crescat et insit*, *sine corpore oriri Sola*, *in eodem homine atque in eodem vase*, *certum Dispositumque*, *esse et crescere*, *durare genique*, *diversius..magis disiunctum discrepitansque*, *inmortali atque perenni.* 820 *ab rebus munita*: Sallust Cat. 32 1 *ab incendio intellegebat urbem vigiliis munitam*; Hor. od. III 16 1 *Danaen..munierant satis Nocturnis ab adulteris*; Colum. XI 3 2 *hortum ab incursu hominum pecudumque munimus*; Livy XXII 1 3 *sese ab insidiis munierat*; [Caes. b. civ. II 9 5 *tecta atque munita est ab omni ictu hostium*; auct. b. Alex. 78 2 *provinciasque populi Romani a barbaris atque inimicis regibus... munivit.*] The sense admits of no question; but it may perhaps be a question whether the *vitalibus ab rebus* of mss. was not used by Lucr. in the sense of *letalibus* with contemptuous allusion to the use of *vitalia* as a euphemism for *mortualia*: Sen. epist. 99 22 *quam multis cum maxime funus locatur! quam multis vitalia emuntur!* and Petron. sat. 77 at end *interim, Stiche, profer vitalia in quibus volo me efferri*, and 42 *bene elatus est, vitali lecto, stragulis bonis.* 826 *male habet*: Ter. Andr. 436 *hoc male habet virum*; 940 *qui me male habet*; hecyr. 606 *haec res non minus me male habet quam te*; Tib. I 4 76 *Quos male habet multa callidus arte puer*; [Lucil. VII 20 *Hanc ubi vult male habere, ulcisci pro scelere eius.*] 827 'there is much force in *Praet. male adm.*, if you compare *futuris* in 825: not only present bodily suffering (824), but fear of future suffering (825); and when evil deeds are past and gone, remorse remains' J. E. M. *Praet. adm.* is the abl. abs. *male adm.*: V 1224 *Nequid ob admissum foede.* *remordent*: IV 1135 *conscius ipse animus se forte remordet*; Aen. I 261 *quando haec te cura remordet.*

830—869: thus the soul being proved to be mortal, death is nothing to us; for as we felt no discomfort, when Rome and Carthage were warring for the empire of the world, we shall feel none after the dissolution of body and soul, though heaven and earth go to ruin: if our soul even do exist after death, that is nothing to us, whose identity consists in the union of soul and body: or if infinite time to come collects again and gives life to the very same atoms of which we consist, that is nothing to us, when this identity has once been broken; even as we know and remember nothing of our former selves, if as is probable infinite time past arranged the atoms just as they now are in us: death will prevent us from existing in that future time and feeling the ills that may befall that repetition of ourselves: death then will at once make us for evermore as if we never had been. 830 foll. Epicurus to Menoeceus in Diog. Laert. X 125 says τὸ φρικωδέστατον οὖν τῶν κακῶν ὁ θάνατος οὐθὲν πρὸς ἡμᾶς, ἐπειδήπερ ὅταν μὲν ἡμεῖς ὦμεν, ὁ θάνατος οὐ πάρεστιν, ὅταν δ' ὁ θάνατος παρῇ, τόθ' ἡμεῖς οὐκ ἐσμέν. Both Lactantius and Bayle

assail Epic. and Lucr. with the 'Mors misera non est: aditus ad mortemst miser'; but neither meets them on their own ground. 830 *Nil est ad nos*: 845 *Nil tamen est ad nos*; 926 *Multo igitur mortem minus ad nos esse putandum est*; 972 *Respice item quam nil ad nos anteacta vetustas..fuerit*: Lucr. is prob. translating Epicurus' οὐδὲν πρὸς ἡμᾶς. Plin. epist. VII 17 12 *recte an secus, nihil ad me*; paneg. 31 *nihil hoc ad urbem ac ne ad Aegyptum quidem*; Ov. trist. II 472 *Hoc est ad nostros non leve crimen avos*; Cic. de fin. I 39 *nihil ad Epicurum*: Madvig cites there de div. II 78, and other instances. [Comp. also Cic. in Pis. 68 *rectene an secus, nihil ad nos, aut, si ad nos, nihil ad hoc tempus.* For a number of exx. in Cicero see Nizol. p. 19 col. 1.] 831 *habetur* here=intellegitur, not simply *existimatur*: comp. I 758 *quid a vero iam distet habebis*, and n. there. 833 comp. culex 33 *Graecia cum timuit venientes undique Persas*; Juv. XI 113 *Litore ab oceano Gallis venientibus*: *venio* is continually used by Livy for the hostile advance of soldiers: see Arnob. VII 50 at beg. 835 *Horrida* cet.; Lucr. seems to have been thinking of Ennius ann. 311 *Africa terribili tremit horrida terra tumultu*; and Spenser faerie qu. I 11 7 to have been thinking of Lucr. *That with their horror heven and earth did ring*: Catullus too, quoted in n. to 57, imitates Lucr.: Virg. catal. 12 3 *Terrarum hic bello magnum concusserat orbem.* 836 *In dubioque* cet. i.e. omnes humani in dubio fuere utr. ad reg. sibi cadendum cet.: Lucr. is very fond of such inversions: see n. to I 15: *humanis*, as 80 *Percipit humanos odium*, where see note. *ad regna cad.*: Livy I 40 3 *praeceps inde porro ad servitia caderet*; Publil. Syrus 101 *Cito improborum laeta ad perniciem cadunt*: with these vss. comp. Livy XXIX 17 6 *in discrimine est nunc humanum omne genus, utrum vos an Carthaginienses principes terrarum videat*: was Livy thinking of Lucr. or do both of them refer to Ennius perhaps or Naevius? 839 *uniter apti* recurs 846; and the phrase is found thrice in V, *uniter* being apparently used by Lucretius alone; as well as *longiter*: the words are opposed to *discidium*, and express that organic union of body and soul which gives a man his individuality and personal identity. 842 *Non si terra* cet. a proverbial expression: see n. to I 2 3 and 6—9: Juv. II 25 *Quis caelum terris non misceat et mare caelo*; Livy IV 3 6 *quid tandem est cur caelum ac terras misceant?*: comp. what Cicero de fin. III 64 calls *illa vox inhumana et scelerata*, adopted by Tiberius and Nero, Ἐμοῦ θανόντος γαῖα μιχθήτω πυρί· Οὐδὲν μέλει μοι, τἀμὰ γὰρ καλῶς ἔχει. Sextus pyrrh. hyp. III 229 is an excellent comment on the above vss. καὶ ὁ Ἐπίκουρος δέ φησιν 'ὁ θάνατος οὐδὲν πρὸς ἡμᾶς· τὸ γὰρ διαλυθὲν ἀναισθητεῖ, τὸ δὲ ἀναισθητοῦν οὐδὲν πρὸς ἡμᾶς'· φασὶ δὲ καὶ ὡς εἴπερ συνεστήκαμεν ἐκ ψυχῆς καὶ σώματος, ὁ δὲ θάνατος διάλυσίς ἐστι ψυχῆς καὶ σώματος, ὅτε μὲν ἡμεῖς ἐσμέν, οὐκ ἔστιν ὁ θάνατος, οὐ γὰρ διαλυόμεθα, ὅτε δὲ ὁ θάνατος ἔστιν, οὐκ ἐσμὲν ἡμεῖς· τῷ γὰρ μηκέτι τὴν σύστασιν εἶναι τῆς ψυχῆς καὶ τοῦ σώματος οὐδὲ

ἡμεῖς ἐσμέν. Cic. Tusc. disp. I 90 *nec pluris nunc facere M. Camillum hoc civile bellum quam ego illo vivo fecerim Romam captam.*

843 *si iam*: see n. to I 968: the assumption is of course false. *si iam nostro sentit* cet.: similarly involved in construction are I 566 *possit tamen omnia reddi Mollia quae fiunt...Quo pacto fiant* cet.; 632 *Non possunt ea quae debet genitalis habere Materies*; 648 *si partes ignis eandem Naturam quam totus habet super ignis haberent*; II 1133 *quanto est res amplior, augmine adempto, Et quo latior est, in cunctas* cet.; VI 158 *Ventus enim cum confercit franguntur in artum Concreti montes* cet. and 176 *Fecit ut ante cavam docui spissescere nubem*; also III 261 *Sed tamen ut potero summatim attingere tangam*; IV 1119 *Nec reperire malum id possunt quae machina vincat*; 193 *primum quod parvola causa Est procul a tergo quae provehat atque propellat*: Ovid is often very licentious on this head: comp. ars I 339; amor. III 5 13 14, and 18; ibis 3; ex Ponto I 1 80; 5 79; her. 10 110. [Comp. also Plaut. Amph. arg. I 7 *Blepharo captus arbiter, Uter sit non quit Amphitruo decernere*; ib. v. 84; Catull. 66 40 *adiuro teque tuumque caput, Digna ferat, quod si quis inaniter adiurarit*; Lucan IX 568 (corr. by Madvig adv. II p. 133) *An sit vita brevis nil longane differat aetas?*; Calpurn. IX 60 *Munera namque dedi...Vocalem longos quae ducit aedona cantus.*] Lucr. might have written here *Et si iam sentit, nostro* cet., but we feel the present order to be more impressive: very similar is V 177 *Natus enim debet quicumque est velle manere In vita*, where he might have written *Debet enim, natus quicumque est, velle* cet.; Virg. ecl. II 12 *At mecum raucis tua dum vestigia lustro Sole sub ardenti resonant arbusta cicadis*, where, as I have learnt from Dr B. H. Kennedy, *mecum* belongs to the clause *tua dum* cet.: Virgil too might have said *At raucis, mecum* cet.: see also n. to II 250 *Declinare—sese.* 845 *comptu*: see n. to I 950 *compta.* 847 foll. *Nec si materiem* cet. refers probably to some theory like this in St Austin civ. dei XXII 28 *mirabilius autem quiddam Marcus Varro ponit in libris quos conscripsit de gente populi Romani, cuius putavi verba ipsa ponenda: 'genethliaci quidam scripserunt' inquit 'esse in renascendis hominibus quam appellant παλιγγενεσίαν Graeci: hac scripserunt confici in annis numero quadringentis quadraginta, ut idem corpus et eadem anima, quae fuerint coniuncta in homine aliquando, eadem rursus redeant in coniunctionem'.* 848 comp. 857. 850 foll. 'Cic. Tusc. I 91; Prodicus ap. Plat. Axioch. 369 B' J. E. M. 851 *repetentia*, another word common only to him and his constant imitator Arnobius who twice uses it, II 26 *oblitam* (animam) *quod paulo ante sciebat ex oppositu corporis amittere repetentiam priorum*, and 28 *quod enim rebus ingressis priorum repetentiam detrahit, et intra se gesta inrecordabili debet obliteratione deperdere*: it is then almost certain that Arnobius found *repetentia* in Lucr. and he seems to be referring both to this v. and 675: Lachmann's

objections are wire-drawn; *repetentia nostri*, the recollection of ourselves, naturally enough indicates that continued consciousness of our personal identity which is broken only by death; so long as we live, *memori quimus nos repraehendere mente*; when dead, *non quimus: repetentiam nostri amittimus*. 852 *Et nunc*: 'and so too now': Plaut. curc. 493 *Et nunc idem dico*; Poen. I 1 14 *Et nunc ego amore pereo*; Caes. bel. Gall. VI 13 12 *et nunc, qui diligentius eam rem cognoscere volunt, plerumque illo discendi causa proficiscuntur*. 853 *de illis* i.e. nobis. 854 *cum respicias*: see n. to II 41 *cum videas*. 856 *possis*: see n. to I 327. 859 *repraehendere*=repetere: Wak. compares Cic. Verr. III 51 *quod erat imprudentia praetermissum, id quaestu ac tempore admonitus reprehendisti*. 860 *vitai pausa* recurs 930. *vageque* cet.: 923 *nostros tunc illa per artus Longe a sensiferis primordia motibus errant*: here then *Deerrarunt passim motus* cet. because *deerrarunt primordia, Sensifer unde oritur primum per viscera motus*, as he says 272. 862 *misere aegreque*; as *male est, bene est*: Catull. 38 2 *Malest mehercule et est laboriose*; Lucil. x 2 Muell. *firmiter essent*; and comp. 863 *male.. Accidere*. 862 foll. comp. Sen. epist. 36 9 foll. 864 *probet*: see n. to I 977 *probeat*. 866 *timendum* without *est*, because of *esse* according to Lachmann's rule: see n. to I 111: see also III 796 *infitiandum posse*. 868 *Differre anne*: *anne* recurs IV 781: *diff. anne* seems like *dubito, nescio an*, implying a double clause 'fueritne an non'. 869 *Mortalem* cet.: Amphis in Athen. VIII p. 336 C θνητὸς ὁ βίος...Ὁ θάνατος δ' ἀθάνατός ἐστιν, ἂν ἅπαξ τις ἀποθάνῃ.

870—893: when a man laments that after death he will rot or be the prey of beasts, be sure there is something wrong with him: he does not separate his dead carcase from his present self; and cannot see that after death there will be no other self to stand by and mourn the self thus mangled, or else burnt on the pyre; for if it is an evil after death to be torn by wild beasts, it is surely as much one to burn in flames or the like. 870 *ubi videas*: see n. to II 41. *se...indignarier*: I know no other instance of an acc. of the person in this sense; an acc. of the thing is common enough: comp. Aen. II 93 *casum insontis mecum indignabar amici* with V 350 *casus miserari insontis amici*; so that *miserari*=*indignari*; and Lamb. would read here *miserarier*: 884 *indignatur se mortalem esse creatum*; 1045 *Tu vero dubitabis et indignabere obire*; Sulpicius ap. Cic. ad fam. IV 5 4 *hem nos homunculi indignamur si quis nostrum interiit*. 871 *cor. posto*: see n. to 892. 872 *interfiat*; as *effio, confio*: see n. to II 1004. 873 *non sinc. sonere*, a favourite metaphor with Greeks and Latins from Plato downwards: Theaet. p. 179 D διακρούοντα εἴτε ὑγιὲς εἴτε σαθρὸν φθέγγεται. *sonere*, as 156: Enn. trag. 106 *neque irati neque blandi quicquam sincere sonunt*: see n. to 156. *sub. stim.*: IV 1082 *Et stimuli subsunt*. 876 *dat* cet. i.e. dat id quod promittit se daturum, et id ex quo promittit se daturum: *unde datum*

is a regular phrase: see Hor. sat. II 2 31 and Bentl. there, who cites Ovid and Persius. 877 *eicit*: IV 1272 *Eicit enim*; Virg. ecl. III 96 *reice capellas*; [Hor. sat. I 6 139 *Deicere de saxo*;] Stat. Theb. IV 574 *reicitque*; Sen. Phoen. 426 *proiciet*: Seneca often has *ădice, ŏbici, ŏbicit* or *sŭbicit.* 878 *esse...super* i.e. superesse. 880 *in morte*, after death: Sen. epist. 30 5 and 8 uses *in ipsa morte* for the moment of dying, but 9 *in morte* means 'after death' as in Lucr. 881 *miseret* personal: Ennius has *miserete* and *misererent*; Virgil uses *miseresco. illim*, the same as *illinc*: Cicero uses both *illim* and *istim*: on these and cognate forms see Ritschl opusc. II p. 452—459. *dividit illim* i.e. ab illo se: it seems simpler not to join it with *removet* and so make *a proiecto corpore* an epexegesis of it, as Lach. does; though that would perhaps resemble Virg. ecl. I 54 *Hinc...vicino ab limite.*
883 *contaminat* has here the neutral sense that the subst. *contagia* has in 345 *corporis atque animai Mutua contagia*, and 740 *consensus contagia.* 885 *alium se*: Quintil. XII 11 2 *cavendum est...ne se quaerat priorem.* 888 *Nam* cet. with reference to *lacerari urive*, because it was vulgarly thought that to be mangled by beasts was a misfortune, to be burnt on a funeral pile a blessing: Petron. sat. 115 *ferae tamen corpus lacerabunt. tamquam melius ignis accipiat; immo hanc poenam gravissimam credimus, ubi servis irascimur*: comp. also Sen. epist. 92 34. 889 *Tractari*; an unusual meaning: in Ennius and others it has the sense of to drag: see Forc. 890 *torrescere* appears to be a ἅπαξ λεγόμ. 891 892 denote one mode of burial, that of embalming and laying in a sarcophagus: though in the time of Lucr. burning on a pile and gathering the ashes in an urn was the common method, the other was also practised; the numerous sarcophagi of all ages are sufficient proof of this. 891 *in melle*: it appears from many passages that honey was a principal means of preserving a dead body: see Xenophon Varro Josephus in Lamb. and Hav. [Alexander's body was so preserved: Stat. silv. III 2 117 (Friedlaender Sittengesch. II p. 175)]. 892 *sum. gel. aeq. saxi* prob. denotes the bottom of the sarcophagus on which the embalmed body was laid out: 871 *corpore posto*: but bodies were sometimes stretched on the bare rock out of which the tomb was hewn, as proved by many ancient tombs that have been opened: or it may refer to a stone bed, like the *lecti mortuarii* of the Etruscans: see corp. inscr. I 1313 for a curious inscription found in a sepulchral chamber at Falerii, in which they are assigned to various people, these *lecti* being hewn out of the rocky walls. [Comp. Mart. VIII 44 13 *Supraque pluteum te iacente vel saxum, Fartus papyro dum tibi torus crescit.*] *aequore*: IV 107 *speculorum ex aequore.* 893 common burying in the earth: [Ov. met. IV 243 *enectum pondere terrae...caput*:] Virg. geor. II 351 *Qui saxo super atque ingentis pondere testae Urgerent*, imitates this v. of Lucr. with quite another sense.

894—911: they say, you will see no more wife home and children; but they do not add, you care not now for these; else they would not thus grieve for you: another adds, you sleep the sleep of death, freed for ever from all ills; but we remain to mourn evermore: you might ask this man, if the dead only sleeps, why mourn for him evermore? 894 *Iam iam*: Cic. Verr. I 77 *iam iam, Dolabella, neque me tui neque tuorum liberum...misereri potest*; Catull. 63 73 *Iam iam dolet quod egi, iam iamque paenitet*; 64 143 *Iam iam nulla viro iuranti femina credat*; Aen. IV 371 *iam iam nec maxima Iuno Nec Saturnius haec oculis pater aspicit aequis*; [II 701 *Iam iam nulla mora est*:] so in Ovid *iam numquam videndus*, *loca iam non adeunda*, and the like = non amplius cet. *neque ux. opt.*: it is not certain that these words go with what follows: the older editors seem to join them with what precedes, though their stopping is ambiguous. 895 *nec dulces* cet.: Virg. geor. II 523 *dulces pendent circum oscula nati, Casta pudicitiam servat domus*; Gray elegy 21 *For them no more the blazing hearth shall burn Or busy housewife ply her evening care, No children run to lisp their sire's return Or climb his knees the envied kiss to share*: Virgil and Gray I fancy joined the *uxor* with the *domus*. [*occurr. praeripere*: Plaut. Bacch. 631 *Militis parasitus huc modo aurum petere hinc venerat*; Cas. III 5 68 *Ego huc missa sum ludere*; asin. 901 *ecquis currit pollictorem arcessere?*; Pseud. 645 *Reddere hoc, non perdere, erus me misit*; Ter. Ph. 102 *Voltisne eamus visere?*; hec. 188 *nostra ilico It visere ad eam*; ib. 345 *filius tuus intro iit videre*; eun. 528 *misit porro orare ut venirem*; Virg. Aen. I 527 *Nec nos aut ferro Libycos populare penatis Venimus aut raptas ad litora vertere praedas*; Hor. od. I 2 7 *Omne cum Proteus pecus egit altos visere montes*; ib. III 21 7 *Descende . . Promere languidiora vina*; Ov. her. I 37 *te quaerere misso . . nato*; Prop. I 1 12 *Ibat et hirsutas ille videre feras*; I 6 33 *Seu pedibus terras seu pontum carpere remis Ibis*; I 20 23 *At comes invicti iuvenis processerat ultra, Raram sepositi quaerere fontis aquam*; III (II) 8 (16) 17 *mittit me quaerere gemmas*; IV (III) 1 3 *Primus ego ingredior...ferre*; V (IV) 1 71 *Quo ruis imprudens, vage, dicere fata, Properti?*; Wilmanns' exemp. inscr. Lat. 2566 *vade in Apolinis lavari*.] 896 *tacita* cet.: Virgil was thinking of Lucr. as well as Homer when he wrote Aen. I 502 *Latonae tacitum pertemptant gaudia pectus*. 897 *factis flor.*: Plaut. miles 56 *te unum in terra vivere Virtute et forma et factis invictissumis*. 898 *misero misere*, κακῷ κακῶς: Cic. ad Att. III 23 5 *quem ego miserum misere perdidi*: Plautus revels in this and like expressions; see Naeke Rhein. mus. III p. 329, *misere miseri, scite scitus, bella belle, doctum docte, inique iniqui, mala malae male, bonus bonis bene feceris, cupida cupiens cupienter cupit*: comp. the *Poorly poor man he lived, poorly poor man he died* of Spenser: 1015 *Est insignibus insignis*. *omnia* cet.: Mommsen inscr. regni Neapol. 3133 *Apstulit haec unus tot tantaque munera nobis*

Perfidus infelix horrificusque dies. 900 *Illud* cet. shews indirectly who the speakers are, as in 909. 901 *super* = insuper: see n. to I 649. *desiderium* cet.: 918 *Aut aliae cuius desiderium insideat rei.* 904 *Tu quidem ut*: a rare form of elision in hexameter verse: see Luc. Mueller de re metr. p. 290: but found also VI 80 *Quam quidem ut*: comp. III 339 *Non enim ut*; VI 485 *Innumerabilem enim*; V 589 *Alteram utram*; IV 616 *Pluseulum habent*; 618 *spongiam aquai*; I 1012 *alterum eorum*: it occurs occasionally in Virgil Horace and Ovid.—Orell. inscr. 1192 SOMNO. AETERNAL. C. MATRINI VALENTI. PHILOSOPHI EPICUR...MATRINIA CONIUGI INFELICISSIM. 905 *Duncan's in his grave: After life's fitful fever he sleeps well*: faerie queene I 9 40 *He there does now enjoy eternall rest And happy ease which thou dost want and crave.* 906 *cinefactum*: Lach. assails Nonius for explaining it 'in cinerem dissolutum': after the analogy he says of *tumefacere rubefacere* and the like it must be connected with a supposed neut. verb *cinēre*: *prope* must be joined with it: so *prope cinef.* means 'qui iam prope cineris colorem et adspectum nanctus est'. He thus in his short enigmatical way implies that *bustum* here is not the pyre, but the tomb in which the body was laid entire and gradually assumed from time the hue of ashes. *horrifico busto* I have no doubt means the funeral-pile: Aen. XI 200 *Ardentis spectant socios semustaque servant Busta neque avelli possunt*; Paulus Festi p. 32 '*bustum* proprie dicitur locus in quo mortuus est combustus et sepultus': and if *cinefactum* cannot have the meaning given to it by Nonius, it must imply that the friends looked on and wept while the body was caught by the flames and gradually changed its natural colour for that given to it by the scorching of the fire. This is perhaps more poetical than the meaning assigned to it by Nonius, though it is bold in such a case to speak dogmatically like Lach.; but it spoils the fine passage to join, as he does, *prope* with *cinef.*: with the use of *prope* here comp. VI 403 *prope ut hinc teli determinet ictus.* 907 *Ins. defl.*: Hor. epist. I 14 7 *dolentis Insolabiliter.* 908 *maerorem* seems rather to have the force of *dolorem*: Cic. ad Att. XII 28 3 *maerorem minui: dolorem nec potui nec, si possem, vellem.* 909 *Illud ab hoc*: here, as 900, with poetical indirectness he tells who is the speaker of 904—908: probably the son or nearest relation is singled out. 911 *Cur quisquam aeterno* cet. with reference to 907 *aeternumque Nulla dies* cet.

912—930: men say glass in hand 'enjoy the moment, it cannot be recalled'; as if after death one felt the want of wine or aught else: in sleep we have no thought for life; how much less then in death if there can be a less than nothing! for death is a more complete dispersion of our matter, a sleep that knows no waking. 912 foll. Martha p. 159 foll. well contrasts the sternness of Lucretian with the frivolity of Horatian epicureanism: the 'carpe diem' and the like.

912 *tenentque*: I 495 *manu retinentes pocula rite.* 913 *saepe* = ut saepe fit: see n. to V 1231. *ora* is very vaguely used by the poets; here it must mean the brows: Aen. VI 772 *umbrata gerunt civili tempora quercu*: for it would be far-fetched to suppose that the crown on the head shaded the face. 914 *Ex an. ut dic.*: IV 1195 *facit ex animo saepe*; Ter. eun. 175 *Utinam istuc verbum ex animo ac vere diceres*; 179 *Ego non ex animo misera dico*; Sen. epist. 78 19 *risit et quidem ex animo*; Catull. 109 4 *id sincere dicat et ex animo.* *brevis* cet.: Amphis in Athen. VIII 336 C Πῖνε παῖζε· θνητὸς ὁ βίος, ὀλίγος οὑπὶ γῆς χρόνος: copa 37 *Pone merum et talos; pereat qui crastina curat! Mors aurem vellens 'vivite' ait 'venio'.* 915 *fuerit* has its well-known force: *Sive erimus seu nos fata fuisse velint*: found already in Plaut. capt. 516 *me fuisse quam esse nimio mavelim.* 917 *torres*: Lach. quotes from the glossar. Cyrilli ἀπόκαυμα *ustilacio torres*; and for the form compares *labes tabes pubes* cet. 918 *aliae*: this gen. is found even in Cic. de div. II 30 *aliae pecudis iecur nitidum atque plenum est, aliae horridum atque exile*: *rĕi* monosyll. as IV 885 *illius rei constat imago*: see n. to I 688. [In Livy XXIV 27 8 all mss. have *aliae partis*: but see Madvig.] Plaut. miles 802 has the dat. *Qui nisi adulterio studiosus rei nulli aliaest inprobus*, where Ritschl quotes Paulus Fest. p. 27 '*aliae rei* dixit Plautus pro eo quod est *alii rei*': *alterae*, gen. and dat., occurs in Terence. 921 922 he accumulates words to express how utterly indifferent it must be to us. 923 924 see n. to 860 *vageque* cet. 925 *correptus* cet.: 163 *Corripere ex somno corpus.* 928 *disiectus* seems to be a ἅπαξ λεγόμ. 929 *Consequitur*: auctor ad Heren. II 27 *consequi videtur, ut doceamus*; Cic. de orat. III 6 *sudoremque multum consecutum esse audiebamus*; ad Q. fratr. II 6 5 *in eam tabulam magni risus consequebantur*; de fin. IV 29 *obscuratio consequitur*: 'idem est fere atque *accidit* sive *fit*' Madvig. *leto* abl. = in leto, in morte: corp. inscr. I 1009 l. 17 *leto tacent*; Aen. VIII 566 *leto sternendus erat*; IX 433 *Volvitur Euryalus leto.* *expergitus* occurs twice in Fronto. 930 comp. Cic. Tusc. I 92 *habes somnum imaginem mortis eamque cotidie induis, et dubitas quin sensus in morte nullus sit, cum in eius simulacro videas esse nullum sensum?* *quem semel est secuta*: Ov. met. II 611 *Corpus inane animae frigus letale secutum est*; Colum. VII 4 2 *clades sequitur gregem*: 'saepius res *sequi* aut *consequi aliquem* dicitur, ubi recentiores aut absolute sequi eam dicerent aut aliquem in eam incidere' Madv. de fin. I 32: he cites Tusc. II 28 *quis igitur Epicurum sequitur dolor*; Sall. orat. Philippi 9 *malos praemia sequuntur.*

931—977: if nature were to say to you or me 'why lament your death? if your life has been a pleasant one, why not go to rest satisfied with the feast? if the contrary, why not end your troubles? for I have nothing new to give you, if you were to live for ever': we must allow her words to be true: if an old man were to bemoan himself, would she

not with justice thus chide? 'a truce with tears; the fault is your own, if you have not had enjoyment': make way for others: they too will follow you, as you now follow those before you; life is but a limited tenure: what took place before our birth is nothing to us; judge from this of what the future will be after our death. 932 *hoc alicui...increpet*: a common constr. in Livy: I 51 1; VI 37 1; IX 24 10; X 35 11; XXVII 1 9: ['*increpitare alicui aliquid* Properz u. Val. Max.' Draeger hist. synt. I p. 384: see Propert. IV (III) 25 14 *speculo rugas increpitante tibi.*] 933 *Quid tibi tanto operest* seems to mean *quid tibi est tam magni momenti*. 935 *Nam gratis* cet., 938 *Cur non*: it can hardly be said that *si* is omitted here: it is one of those sentences common in the best writers, where the first clause is asserted as a supposition: 'you have passed, let us say, a happy life; well then etc.': Cic. ad Att. XIV 13 4 *proficiscor, ut constitueram, legatus in Graeciam: caedis impendentis periculum nonnihil vitare videor* cet.; *sin autem mansero* cet.; where, as in Lucr., the meaning is made clear by the *sin* of the 2nd part: Hor. epist. I 1 33—37; ib. 87—89, with *si non* in 2nd clause; Ov. ars II 225—230; Sen. Agam. 262 263; Quintil. I 2 11; Juv. XVI 17—22. 935 *gratis*: its opposite *ingratis* is used by Lucr. four times: Plautus and Terence have the full forms *gratiis* and *ingratiis*, but Cicero uses *gratis* and *ingratis*: they mean with the will and against the will respectively.

936 *pertusum* cet.: 1009 *laticem pertusum congerere in vas*: the allusion here therefore must be to the Danaids: Plaut. Pseud. 369 *In pertusum ingerimus dicta dolium; operam ludimus*: Marullus says in marg. cod. Victor. 'λαμπρά'. 937 *ingrata* is opposed to 935 *gratis*. 938 *plenus* cet.: comp. 960 *Quam satur* cet. and Hor. sat. I 1 118 *exacto contentus tempore, vita Cedat uti conviva satur*; then 121 *verbum non amplius addam*; and Lucr. 941 *cur amplius addere quaeris*: Sen. epist. 98 15 *ipse vitae plenus est, cui adici nihil desiderat sua causa*; Stat. silv. II 2 128 *abire paratum Ac plenum vita*: Orellius l. l. quotes from Stobaeus ὥσπερ ἐκ συμποσίου ἀπαλλάττομαι οὐδὲν δυσχεραίνων, οὕτω καὶ ἐκ τοῦ βίου, ὅταν ἡ ὥρα ᾖ. Comp. too 969 *quam tu cecidere cadentque* with Hor. ars 70 *quae iam cecidere cadentque*: 971 perhaps with epist. II 2 159: see n. there: 996 *Qui petere a populo fasces saevasque secures Imbibit et semper victus tristisque recedit* with epist. I 16 33 *ut si Detulerit fasces indigno detrahit idem. 'Pone, meum est' inquit: pono tristisque recedo*: 1028 *magnis qui gentibus imperitarunt* with sat. I 6 4 *qui magnis legionibus imperitarent*, as Lucr. V 1227 has *Induperatorem... Cum validis legionibus*: 1063 *Currit agens mannos ad villam*, 1066 *Aut abit in somnum gravis atque oblivia quaerit*, 1068 *Hoc se quisque modo fugit (at quem scilicet, ut fit, effugere haut potis est, ingratis haeret)* with epist. I 7 77 *Impositus mannis*, sat. II 6 60 *O rus, quando ego te aspiciam ...nunc somno et inertibus horis Ducere sollicitae iucunda oblivia vitae*, 7 112 *Non horam tecum esse potes, non otia recte Ponere, teque ipsum vitas*

fugitivus et erro...iam somno fallere curas: Frustra, nam comes atra premit sequiturque fugacem, od. II 16 19 *patriae quis exul Se quoque fugit?*; epist. I 14 13 *In culpa est animus qui se non effugit umquam.*

939 *capis securam* cet.: Ov. fasti VI 331 *placidamque capit secura quietem*: comp. with what precedes Sen. de benef. III 4 *hoc loco reddendum est Epicuro testimonium qui adsidue queritur quod adversus praeterita simus ingrati, quod quaecumque percepimus bona non reducamus nec inter voluptates numeremus, cum certior nulla sit voluptas quam quae iam eripi non potest.* 941 *in offensust*: *offensa* in Cicero; as ad Att. IX 2 a 2 *negas te dubitare quin magna in offensa sim apud Pompeium*: so *in invidia, in honore, in amore esse*: IV 1156 *Esse in deliciis summoque in honore vigere.* 943 (cur) *Non* cet. *finem facis*: 1093 *qui finem vitai fecit*: the phrase is very common. 945 *eadem sunt omnia semper*, 947 *eadem tamen omnia restant*: so says the preacher I 9 *the thing that hath been is that which shall be, and that which is done is that which shall be done; and there is no new thing under the sun.* 948 *si pergas*, 949 *si numquam sis moriturus*: I doubt whether I have done right in reading *pergas* for *perges* of mss. in deference to Lamb. and Lach.: here the decisive future, followed by the more hesitating potential *sis moriturus* in a case which must ever continue doubtful, appears to suit the context: Juv. I 159 Jahn reads with P *vehatur Pensilibus plumis atque illinc despiciet nos*: Mayor *despiciat.* 948 *Omnia* cet.: 1090 *licet quot vis vivendo vincere saecla*; I 202 *Multaque vivendo vitalia vincere saecla*, where see n. 950 *Quid resp.*: for the indic. comp. Madv. opusc. II p. 39 who among many other passages cites Cic. ad Att. XVI 7 4 *nunc quid respondemus?*; comp. too VI 1106 *Nam quid..putamus*, and n. there. *intendere litem* is a legal phrase; the *intentio* being the plaintiff's claim for damages: Gaius IV 41 *intentio est ea pars formulae qua actor desiderium suum concludit...si paret, N. N....dare oportere* cet. But probably it here means no more than to bring an accusation against: auctor ad Heren. I 27 *ex intentione et infitiatione iudicatio constituitur hoc modo: intentio occidisti Aiacem* cet.; II 28 *ratio est quae causam demonstrat veram esse quam intendimus*; 45 *intendere controversiam*; Cic. de orat. I 42; pro Caecina 20. 955 *abhinc* of the future, a very rare sense: Lach. and before him Forc. cite Pacuvius 21 *seque ad ludos iam inde abhinc exerceant.* 956 *perfunctus v. praemia*: so the antiquarian Fronto, ad Verum II 7, *onera quaestoria et aedilicia et praetoria perfunctus est*: 734 *mala multa...fungitur*; V 358 *neque...fungitur hilum*; III 940 *ea quae fructus cumque es*; IV 1078 *quid primum... fruantur*; 1095 *Nil datur...fruendum*; II 659 *potitur primordia*; III 1038 *Sceptra potitus*; IV 760 *quem...mors et terra potitast*; V 1033 *vim quisque suam quoad possit abuti.* 957 Bentl. quotes Democr. frag. 31 Mullach ἀνοήμονες τῶν ἀπεόντων ὀρέγονται, τὰ δὲ παρέοντα...ἀμαλδύ-

νουσι: comp. too Eur. Hipp. 183 Οὐδέ σ' ἀρέσκει τὸ παρὸν τὸ δ' ἀπὸν φίλτερον ἡγῇ: and inscr. Lat. I 1453 *Quod fugis, quod iactas, tibei quod datur: spernere noli*: see n. to IV 885. [960 comp. Stat. Silv. II 2 128 *abire paratum Ac plenum vita.*] 962 *magnus*: Sen. epist. 110 *disce parvo esse contentus et illam vocem magnus atque animosus exclama*; [Mart. VII 44 5 *magnus comes exulis isti.*] *concede*: Ter. hec. 597 *Hic video me esse invisam inmerito: tempus est concedere.* 963 *incilet*, an old word found in Accius Pacuvius and Lucilius. 966 *Nec quisquam* cet. but his matter is used for the growth of other things. 969 *ante haec*: these very things which now flourish by your decay, have in other combinations fallen themselves as you now fall, and in future combinations will fall again. 971 every one has the *usus*, and not only the *usus*, but the *usus et fructus*; for *usu* is doubtless put with poetical brevity for *usu fructu*: *ususfructus*, says the digest, *est ius alienis rebus utendi fruendi, salva rerum substantia*: the *usus* was much more limited; the *fructus* includes the *usus*, not the *usus* the *fructus*. Curius says to Cicero, ad fam. VII 29 1, *sum enim* χρήσει μὲν *tuus*, κτήσει δὲ *Attici nostri; ergo fructus est tuus, mancipium illius*; and Cicero replies in 30 2 *cuius* (Attici) *quoniam proprium te esse scribis mancipio et nexo, meum autem usu et fructu, contentus isto sum. id est enim cuiusque proprium, quo quisque fruitur atque utitur*; Livy XLV 13 15 *Masinissam.. usu regni contentum scire dominium et ius eorum qui dederint esse.* But nature gives to none the *mancipium ex iure Quiritium*, the full and absolute ownership of life; life is only lent; its usufruct as the digest says is only *ius alienis rebus utendi fruendi*; man is never *dominus*; nature keeps the *dominium* to herself: *Quaedam, si credis consultis, mancipat usus*, says Horace, but not life; no *usucapio* is in force here: οὔτι γὰρ κεκτήμεθα Ἡμέτερον αὐτὸ πλὴν ἐνοικῆσαι βίον, says Euripides, or Moschion, of the body. [So too Lucil. XXVII 6 *Cum sciam nil esse in vita proprium mortali datum, Iam, qua tempestate vivo, chresin ad me recipio*; Arnob. II 27 *usu et illis est vita, non mancipio tradita. manc.* and *usu* I take to be ablatives: so Roby gramm. pt. II p. XLVIII.] 973 *quam nascimur ante*: IV 884 *quam mens providit quid velit ante*; VI 979 *quam...prius*: III 358 I now read *quam expellitur ante*: comp. Tib. I 3 9; IV 7 8 *quam meus ante*; Mart. IX 35 6 *quam venit ante.* 976 *horribile*: Pascal found it so: 'quand je considère la petite durée de ma vie, absorbée dans l'éternité précédant et suivant, .. je m'effraie'. 977 Seneca must have been thinking of Lucr. 830—977 when he penned epist. 54 4 *mors est non esse. id quale sit iam scio. hoc erit post me quod ante me fuit. si quid in hac re tormenti est, necesse est et fuisse ante quam prodiremus in lucem: atqui nullam sensimus tunc vexationem*: (comp. 832 *anteacto nil tempore sensimus aegri*) .. *utrimque vero alta securitas* cet.: (comp. 977 *non* omni somno securius *exstat*). Arist. eth. Nicom. III 9 with truer instinct,

φοβερώτατον δ' ὁ θάνατος· πέρας γάρ, καὶ οὐδὲν ἔτι τῷ τεθνεῶτι δοκεῖ οὔτ' ἀγαθὸν οὔτε κακὸν εἶναι.

978—1023: the stories told of hell are really true of this life: Tantalus, Tityos, Sisyphus, the daughters of Danaus, are but types of people tormented here by various lusts and passions: Tartarus too, Cerberus and the furies have no existence; but are pictures of the various punishments of crime in this world; and even if these are escaped, the tortures of conscience make a hell of earth. 980 foll. this punishment is assigned to him by many, as Pindar Cicero and Eurip. Orest. 5, a passage Lucr. may have had before him, Τάνταλος Κορυφῆς ὑπερτέλλοντα δειμαίνων πέτρον Ἀέρι ποτᾶται: see Porson's long note, and Pausanias there cited, who describes a picture of Polygnotus and says the latter got the impending stone from Archilochus: comp. too Welcker, Rhein. Mus. x p. 242—254: he comments on Alcman's fragment about Tantalus: Ribbeck prol. Verg. p. 62; and a learned article by Dom. Comparetti in Philolog. XXXII p. 226—251, on Pindar's account. 981 *cassa form.* recurs 1049. 983 *casum*: there is an evident play on the literal and figurative meaning of this word: comp. with the above Cic. de fin. I 60 *accedit etiam mors quae, quasi saxum Tantalo, semper impendet, tum superstitio qua qui est imbutus, quietus esse numquam potest*: he may well have been thinking of Lucr. here, as in Tusc. IV 35 he draws a different moral from some tragic poet. 986 *Perpet. aetatem*: VI 236 *Quod solis vapor aetatem non posse videtur Efficere.* 989 *Optineat*: Livy V 37 5 *immensum obtinentes loci*; XXXV 27 15 *obtinebant autem longo agmine... prope quinque milia passuum*; Cic. orator 221 *haec enim in veris causis maximam partem orationis optinent.* 992 *nobis*: see n. to I 797.

993 *volucres* seems to be explained by *angor* and *curae*, but as a poet he joins them by the simple copula *atque*, and does not say *hoc est angor*, or the like: Ov. ex Pont. IV 13 11 *vires, quas Hercule dignas Novimus atque illi quem canis esse pares*; Cic. de fin. I 34 *in liberos atque in sanguinem suum tam crudeles fuisse*: see Madvig who cites Verr. V 184 *dignum capitolio atque ista arce omnium nationum*; Halm pro Sulla p. 52: comp. the use of *et*, = id est, in II 615 *et ingrati genitoribus inventi sint*; and Juv. XI 123 *Grande ebur et magno sublimis pardus hiatu Dentibus ex illis quos* cet. *anxius angor* recurs VI 1158: comp. Cic. Tusc. IV 27 *estque aliud iracundum esse, aliud iratum, ut differt anxietas ab angore; neque enim omnes anxii qui anguntur aliquando, nec qui anxii semper anguntur, ut inter ebrietatem et ebriositatem interest, aliudque est amatorem esse, aliud amantem*: so that Lucr. may mean to express an abiding anguish; or it may be only one of his many poetical pleonasms and assonances: see n. to I 826 *sonitu sonanti*; and comp. Virgil's imitation Aen. IX 89 *timor anxius angit*; and Enn. trag. 256 *otioso in otio*, to which Cicero's rule might apply. *anx. angor* is Cicero's *aegritudo*: Tusc. disp. III 27 *cum omnis perturbatio miseria est, tum carnificina est aegri-*

tudo...lacerat exest animum planeque conficit. 996 *fasces* cet.: v 1234 *pulchros fascis saevasque secures*; Aen. vi 819 *Consulis imperium hic primus saevasque secures Accipiet*: in Lucr. *Nam petere imperium* follows immediately. 997 *Imbibit*: vi 72 *ut ex ira poenas petere inbibat acris*: Forc. gives examples of this use from Cicero and Livy. 1000 *nixantem*: iv 506 *nixatur*; vi 836 *nixari*: lexicons give no other instance except Aen. v 279, where indeed MPV have *Nixantem*, R *Nexantem*. 1001—1002 Odyss. λ 595 Ἤτοι ὁ μὲν σκηριπτόμενος χερσίν τε ποσίν τε Λᾶαν ἄνω ὤθεσκε ποτὶ λόφον· ἀλλ' ὅτε μέλλοι Ἄκρον ὑπερβαλέειν, τότ' ἀποστρέψασκε κραταιΐς· Αὖτις ἔπειτα πέδονδε κυλίνδετο λᾶας ἀναιδής. 1001 *rusum*: see n. to 45 *prosum*. 1004 *explere* cet.: Nonius p. 424 '*expleri* et *satiari* hanc habent differentiam: *expleri* est tantummodo plenum esse, *satiari* supra modum et abundantiam. Lucretius lib. vi *Deinde animi ingratam naturam pascere semper, Atque explere bonis rebus satiareque numquam.* M. Tullius de re publica lib. vi *graves enim dominae* cet. *quae quia nec expleri nec satiari ullo modo possunt*' cet.: the words are practically synon. both in Lucr. and Cicero who in Cato 47 has *satiatis vero et expletis* with the order inverted. 1005 *circum cum redeunt* expresses Homer's περιπλομένων ἐνιαυτῶν. 1010 *potestur*: see n. to i 1045 *queatur*.

1011 see notes 1 and Servius there; and comp. Cic. Tusc. i 10 *dic, quaeso, num te illa terrent, triceps apud inferos Cerberus, Cocyti fremitus, travectio Acherontis,* Mento summam aquam attingens enectus siti Tantalus, *tum illud quod* Sisyphu' versat Saxum sudans nitendo neque proficit hilum, *fortasse etiam inexorabiles iudices Minos et Rhadamanthus?* in the lost vss. mention may well have been made of Cocytus, Acheron, Rhadamanthus or Minos, and of Ixion's punishment, and thus antecedents got for *Qui sunt*: in geor. iv Ixion's wheel is mentioned in the same way together with Tartarus, Cerberus and the furies; and his wheel would well represent some of the punishments on earth spoken of presently: in Ov. met. iv 465 Ixion is conspicuous among the rest; see too Sen. epist. 24 18 *non sum tam ineptus ut epicuream cantilenam hoc loco persequar et dicam vanos esse inferorum metus, nec Ixionem rota volvi nec* cet.; just below he continues *nemo tam puer est ut Cerberum timeat et tenebras* cet.: comp. Lucr. *Cerberus et furiae iam vero et lucis egestas*: Juv. xiii 51 also has *Nec rota nec furiae nec saxum aut vulturis* cet.: they none of them forget Ixion. 1012 *eructans faucibus aestus*: Aen. vi 297 *Aestuat atque omnem Cocyto eructat harenam*, 240 *halitus atris Faucibus effundens.* 1015 *luella*: see n. to i 39 *loquellas*: this word seems to be a ἅπαξ λεγόμ. 1017 *robur* must be the lowest dungeon in a prison, hence called *carcer inferior*, into which criminals were thrown before execution: Tac. ann. iv 29 *robur et saxum aut parricidarum poenas minitantium*; Livy xxxviii 59 10 *ut in carcere...includatur et in robore et tenebris exspiret*: the famous *robur Tullianum*, still to be seen at Rome,

is described by Sall. Cat. 55; comp. too Paulus Festi p. 264 *robus quoque in carcere dicitur is locus quo praecipitatur maleficorum genus, quod ante arcis robusteis includebatur.* Some take *robur* to mean the *eculeus*; and Valer. Max. VI 8 1 joins *laceratus verberibus eculeoque inpositus, candentibus etiam lamminis ustus*; Sen. controv. 34 p. 387 Elz. *tortor cum ignibus flagellis eculeis*; and epist. 78 19 *plus est flamma et eculeus et lammina*: Cic. Verr. V 163 *cum ignes ardentesque lamminae ceterique cruciatus admovebantur*: the *flamma* of Seneca and *ignes* of Cicero = the *taedae* of Lucr. *pix*: Plaut. capt. 596 *te, si hic sapiat senex, Pix atra agitet apud carnificem tuoque capiti inluceat*: 'Victor. var. lect. VIII 14' J. E. M. 1018 foll. comp. Juv. XIII 192 *cur tamen hos tu Evasisse putes quos diri conscia facti Mens habet attonitos et surdo verbere caedit Occultum quatiente animo tortore flagellum.* 1018 the constr. appears to be *adhibet sibi stimulos terretque se*: comp. 68 *Unde.. Effugisse.. remosse*, and n. there. *conscius sibi* and *conscius factis* are both common, but not the double dat.; though Fronto, a mimicker of old writers, ad amicos I 15 has *cui rei mihimet ipsi conscius sim.* [But *sibi* may belong too to *praemetuens*: Caes. b. Gall. VII 49 1 *Caesar.. praemetuens suis*; Plaut. Amph. 29 *sibi si praetimet.*] 1020 1021 comp. Accius 577 *Neque ulla interea finis curai datur.* 1023 *stultorum*: the epicureans and stoics had many points in common, and among these that of calling the rest of the world fools: *stolidus* he twice uses, and both times of the stoics, as we have seen. With what precedes comp. Democr. frag. 119 Mullach from Stob. flor. CXX 20 ἔνιοι θνητῆς φύσιος διάλυσιν οὐκ εἰδότες ἄνθρωποι, ξυνειδήσι δὲ τῆς ἐν τῷ βίῳ κακοπραγμοσύνης τὸν τῆς βιοτῆς χρόνον ἐν ταραχῇσι καὶ φόβοισι ταλαιπωρέουσι, ψεύδεα περὶ τοῦ μετὰ τὴν τελευτὴν μυθοπλαστεύοντες χρόνου: comp. too V 1154 foll. and Epicurus and Seneca cited there.

1024—1052: you may say too to yourself 'the best and greatest kings conquerors sages and poets, Epicurus himself, have died; why should I then seek to live, who dream away life amid cares and delusions?' 1025 the words are from Enn. ann. 150 *Postquam lumina sis oculis bonus Ancu' relinquit*; the thought of this and the next v. from Iliad Φ 107 Κάτθανε καὶ Πάτροκλος ὅ περ σέο πολλὸν ἀμείνων: Lach. is doubtless right in making the whole of this passage a soliloquy of the reader. *sis*: see n. to I 1022 *se suo.* 1026 *improbe* is ἀναιδής, unconscionable, immoderate in expectation: as Hor. epist. I 10 40 *dominum vehit improbus*; and *improbe* in sat. II 2 104, 3 200; Pers. IV 47; Ov. met. VI 136 *vive quidem, pende tamen, improba*; Juv. IX 63 *Improbus es, cum poscis.* 1027 *rer. poten.*: see n. to II 13. 1029 foll. comp. 'Cic. de fin. II 112' J. E. M. 1029 *magnum*: he is thinking of the power of the sea generally without particular reference to the narrow Hellespont. 1031 *lucunas*: this spelling is confirmed by our mss. here and VI 538 and 552, and by M in Virg. geor. III 365: the change of *ă* into *ŭ* in

compounds is very frequent, as IV 605 *Dissuluit*; so *prosulio desulio insulio* in Plautus: comp. *calco* and *conculco* etc. *quatio* and *concutio* etc. *clam* and *occulo*, *rapio* and *surruptus* etc. a few instances out of many: the antiquarian Fronto has *corruptus* for *correptus*, and *surrupuisse*: Agam. 298 *Sub rupe reductus* of Flor. shews that Seneca wrote *Subrupere doctus*: Plaut. trin. 83 *surrupuisse* A: see Wagner there, and to aulul. 39. 1032 comp. culex 32 *Non Hellespontus pedibus pulsatus equorum.* 1034 *Scipiadas*: see n. to I 26 *Memmiadae*: the termination *-as* is confirmed by our mss. and those of Lucilius Virgil and Horace. *Scip. bel. fulmen*: Aen. VI 842 *geminos, duo fulmina belli, Scipiadas, cladem Libyae*; Silius VII 106 *ubi nunc sunt fulmina gentis, Scipiadae*: all these passages might have reference to a lost one of Ennius or other old poet, and it is natural enough that both the elder and younger Africanus should be termed thunderbolts of war; but then Cic. pro Balbo 34 says *cum duo fulmina nostri imperii subito in Hispania Cn. et P. Scipiones extincti occidissent.* Gnaeus and Publius were great generals; but still when they met so disastrous an end, it is strange that Cicero should call them the two thunderbolts of the empire. When we think of the words *scipio* and *scapus*, and the English *shaft*, and σκίπων σκᾶπτον σκῆπτρον, and then σκηπτός σκήπτω and cognate words, and their connexion with the thunderbolt, we might be tempted to think that the Scipios loved to refer their name to it rather than to the more homely staff. I find but one recorded coin of the family, and it has on the reverse a Jupiter with thunderbolt in the right and sceptre in the left hand; which might recall both meanings of the word. A parallel case would be the device of the Sibyl's head on the coins of the Cornelii Sullae, which was connected with the false derivation of their name from Sibulla, mentioned by Macrob. sat. I 17 27. Valerius Max. III 5 1 has this remarkable expression in relating the degeneracy of Scipio's son, *dii boni, quas tenebras e quo fulmine nasci passi estis!*—I now find that Fick, vergl. Woerterb. p. 202, connects all these Latin and Greek words with many Sanscrit words, and derives them from a root *skap, skvap*, (*skip, skvip*), 'to throw, hurl, set down heavily, press upon'. *Carth. hor.*: Silius XV 340 *Carthaginis horror*; Sen. epist. 86 4 *ille Carthaginis horror*; culex 368 (370) *Scipiadaeque duces, quorum devota triumphis Moenia . . Libycae Karthaginis horrent*; Prop. V (IV) 10 9 *Acron . . tuis quondam finibus horror erat*; Mart. V 65 2 *Nemees terror*, 5 *Silvarumque tremor*; Petron. 123, v. 238 *Magnus, Ille tremor Ponti.* 1035 *famul inf.*: after Enn. ann. 317 *e regno summo ut famul infimus* (mss. *optimus*) *esset*: [perhaps in Ennius the true reading may be *famul ultimus.*] Paulus Fest. p. 87 '*famuli* origo ab Oscis dependet apud quos servus *famel* nominabatur': with *famul* may be compared the many words ending in *r* which have lost the final *us*, as *puer vesper ager socer tener* and the like. 1036 *Adde, Adde*, as in

828 829; IV 1121 1122; VI 611 613; and Livy XXVI 41 12; Ov. ex Ponto II 2 75, 77 *Adde—Adde—adde.* 1037 *Hel. com.*: Aen. IX 775 *Crethea Musarum comitem*; Hesiod theog. 1 Μουσάων Ἑλικωνιάδων, 99 ἀοιδὸς Μουσάων θεράπων; hymn. Hom. XXXII 19 ἀοιδοὶ Μουσάων θεράποντες. 1038 *Scept. pot.*: Accius 590 *sceptrum poteretur patris*; 'Antipater Thess. ep. 24 l. 6 εἰ δ' ὕμνων σκᾶπτρον Ὅμηρος ἔχει' J. E. M. *eadem aliis*: II 919 *animalia sint mortalibus una eademque*; IV 1174 *eadem facit, et scimus facere, omnia turpi.* *aliis* = ceteris: Plaut. trin. 944 *alii di*: Livy thus uses *alius* in the sing. with extreme frequency; he also has the plur. as I 7 3 *dis aliis*; III 54 2 *alii decemviri*; Ov. met. VI 408 *aliisque repertis*; IX 13 *alii cessere*: see too Draeger hist. synt. § 55, who says the usage is unknown to Cicero. 1039 *mat. vetustas*: his age at his death is variously given from 90 to 109 years. 1040 *memores motus* would produce memory, and thereby the power of consistent thought, just as the *sensiferi motus* produce sense. Lucr. by placing Democritus here would seem to give him rank next to Epicurus.

1042 *obit decurso*: Lach. in his elaborate note, after attempting to prove that the last syll. of *iit* and its compounds is always long, proceeds to shew that Lucr. could not have used the contracted form *obit* before a consonant: why? because the poets have three different usages in regard to these forms; a few, Phaedrus Seneca and Silius, admit them only before consonants or at the end of a verse; the old comic poets either before a vowel or consonant; most, Virgil Ovid Lucan Statius Martial and others, only before a vowel: now Lucr. twice uses them before a vowel, IV 339 (314) *Ater init oculos*, 771 *perit alioque*; unless therefore he chose to descend to the level of a comic poet, he could not also say *obit decurso*, as he had taken his stand on the other practice. This curious conclusion is refuted by Luc. Mueller de re metr. p. 399 in a few lines: Martial Lucan and Statius are placed by Lach. in the third and most correct class; but Martial not only says I 62 6 *abit Helene*, II 64 3 *transit et Nestoris aetas*; but also lib. spect. 16 1 *Raptus abit media*, X 77 2 *perit fecit*; Lucan not only has *abit aut*, but also IX 205 *obit Pompeio*, 1098 *perit caruere*; Statius not only *subit ibi* and the like, but also Theb. VII 439 *init fecitque*, X 205 *abit non*: these instances are given by Mueller. In addition Lucan VIII 85 has *perit quod*; 321 *abit aut unde redit maiore* in one v.; Juv. VI 559 *obit et*, 563 *perit cui*. What Lach. says of Virgil has some apparent support from mss., though that means little or nothing, as a large proportion of the oldest mss. of certain authors always write *-it* for *-iit*: Augustus in his res gestae has *adit*, where he meant I presume *adiit*. Taking then into account that poet's usual rhythm it seems almost incredible that he should five times have written *éxit*, *éxit*, *tránsit*, *tránsit*, *tránsit*; never once divided the word between two feet, *exít* etc.; nor used it in the 6th foot; Martial

does not hesitate to say *transít et*; take *audent fundunt* or any other word of the same quantity and see how the case stands with them. It may be said on the other side 'why is not *exiit* or *transiit* used by Virgil in the 5th foot?' but these words only occur five times; and I find that he uses *audiit* 13 times in all, 11 times in the first foot; of the two exceptions one is a case of repetition, *Audiit . . audiit amnis.* It is however possible that Virgil so placed these words as to give his readers the choice of taking them for a dactyl or spondee, as they pleased. Ovid's exceptional and repeated lengthening of *interiit abiit rediit* etc. as well as *petiit* seems done in defiance, as if he would say 'whoever is afraid to lengthen these words, I am not': his example appears to me rather to go against than support Lach.; nor is the *redieit venieit* occasionally found in old inscriptions any 'firmissimum argumentum': *sibei ubei ibei nisei quasei* occur in the new corpus inscr. more than 100 times, *fueit posedeit probaveit* are also found; yet Virgil surely might use all these short. Lach. quotes *redieit* from the titulus Mummian.; but the 2nd titulus, corp. inscr. 542, has the hexam. *De decuma, Victor, tibeí Luciu' Mummiu' donum*; and ib. 38 of one of the Scipios, *Maiorum optenui laudem ut sibeí me esse creatum*; ib. 1009 6 *Ubeí se reliquiae conlocarent corporis.* Neither Wagner philol. suppl. I p. 316 nor Conington Aen. II 497 accepts his Virgilian theory; and, as to Plautus, Fleckeisen in Jahn's Jahrb. LXI p. 59 foll. has deserted him and retracted his former opinion. Lucr. three times uses the contracted perf. of the first conj. I 70 *Inritat*, V 396 *superat*, VI 587 *Disturbat*: in each case a vowel follows; but it may be remarked that the reading in the two first instances rests on a conjecture, though a highly probable one.

dec. lum. vitae: Lach. says 'interpretes *vitae lumen* quomodo *decurratur* . . non recte explicant, scilicet obliti se in libro II 79 legisse *Et quasi cursores vitai lampada tradunt*': I much doubt this allusion, and am disposed with Lamb. to look on it as a mixture of two metaphors, *decurso vitae spatio* and *extincto lumine vitae*: it may have reference to the course of the sun: comp. the curious mixture of metaphors in Juv. IX 126 *festinat enim decurrere velox Flosculus angustae miseraeque brevissima vitae Portio*: Tib. IV 1 51 *Titan decurreret*; 160 *hibernas properat decurrere luces*; Sen. Med. 30 [*sol*] *Per solita puri spatia decurrit poli.* 1044 *Restinxit*: Cic. orat. 5 *nec ipse Aristoteles admirabili quadam scientia et copia ceterorum studia restinxit*: 'Leonid. Tar. ep. 49, t. I p. 233' J. E. M. 1046 *vivo atque videnti*, an alliterative proverb, as Lamb. has seen, strengthened by the oxymoron *Mortua cui vita est*: it occurs in Plautus and Terence and Cic. pro Sestio 59 *vivus, ut aiunt, est et videns cum victu ac vestitu suo publicatus.* 1048 *vigilans* cet.: Plaut. Amph. 697 and capt. 848 *vigilans somniat*; Pseud. 368 *Qui imperata ecfecta reddat, non qui vigilans dormiat*; so that this line too is proverbial: Ter. eun. 1079 *stertit noctis et dies.* 1049 *geris* is simply

habes: see n. to VI 1145 *gerebant*; and comp. old poet ap. Cic. de off. I 61 *Vos enim iuvenes animum geritis muliebrem, illa virgo viri*: *animum* or *animos gerere* is thus used by Livy IV 32 2; VII 31 6; XXXII 11 5; XXXVII 45 12; 54 24. **1051** *Ebrius* may here mean, having the mind disordered and stupefied, or else, reeling like a drunkard under the load of trouble: the metaphor is more obvious, when Horace speaks of one *fortuna dulci Ebria*, or Catullus of a lover's *ebrios ocellos*. **1052** comp. Pacuv. 302 *pertimefactus maerore animi incerte errans vagat.*

1053—1075: men feel a burden pressing on their minds; but if they knew why it weighs upon them, they would not live as they do, trying by constant change of place to escape from themselves: they would give up everything else to study the nature of things, since they have to learn what their condition is to be not for an hour, but for all eternity. **1056** *mali moles*: the assonance is evidently designed; as Cic. in Catil. III 17 *hanc tantam molem mali*; de orat. I 2 *maximae moles molestiarum et turbulentissimae tempestates*, where there is assonance and alliteration: Tusc. III 29 *molem meditabar mali*, after Eurip.; Livy IV 54 4 *multarum magnarumque rerum molem*; V 37 1 *tanta moles mali*; Sen. Herc. Fur. 1239 *perfer hanc molem mali.* **1058** foll. comp. Enn. trag. 256 *Otioso in otio animus nescit quid velit...Imus huc, illuc hinc; cum illuc ventum est, ire illinc lubet: Incerte errat animus, praeter propter vitam vivitur*; Livy XLI 20 4 *nescire quid sibi vellet quibusdam videri.* **1061** *revertit* pres. recurs V 1153: it is an archaism, as perf. *reverti* is common; but *reverto* for *revertor* does not elsewhere occur. Proll, de form. ant. Lucr. p. 44—48, in both places reads *revisit*; but in V mss. have *revertit*; and here *revisit* without *eas* or *ad eas* would be harsh. [In Apul. met. IX p. 648 Oudenorp. *revertit* is surely present; comp. also Pomponius 81 *Si eum nemo vocat, revortit maestus ad maenam miser.*] **1063** *mannos* were small Gallic horses famous for swiftness and evidently in great demand at Rome for use in harness; Horace mentions them in his odes epodes and epistles. *praecipitanter* seems not to occur elsewhere. [**1066** *gravis*: Ov. her. 14 33 gives the full expression *Iamque cibo vinoque graves somnoque iacebant*; met. X 438 *Nacta gravem vino Cinyram*: comp. with Lucr. Cicero 'c. sen. grat. egit' 13 *vini, somni, stupri plenus, madenti coma, composito capillo, gravibus oculis, fluentibus buccis, pressa voce et temulenta*; and Hor. epod. 2 57 *gravi Malvae salubres corpori* i.e. morbo.] **1068** *Hoc se* cet. quoted by Sen. de tranq. an. 2 14 *aliud ex alio iter suscipitur et spectacula spectaculis mutantur. ut ait Lucretius* Hoc se quisque modo semper fugit. *sed quid prodest, si non effugit? sequitur se ipse et urget gravissimus comes*: he rightly marks the antithesis between *fugit* and *effugit*; comp. Apul. met. VIII 24 *fortuna mea saevissima quam per tot regiones iam fugiens effugere...non potui*; Cic. de fin. V 20 *ne vitationem quidem doloris ipsam per se quisquam in rebus expetendis*

putarit, nisi etiam evitare posset; and Sen. epist. 93 at end *quid autem ad rem pertinet quam diu vites quod evitare non possis?*; Hor. epist. I 14 13 *In culpa est animus qui se non effugit umquam.* [For *fugit.. Effugere* comp. also Eur. Phoen. 1216 Ἢν μή με φεύγων ἐκφύγῃς πρὸς αἰθέρα; Aristoph. Ach. 177 Δεῖ γάρ με φεύγοντ' ἐκφυγεῖν 'Αχαρνέας.] 1069 *ingratis*: see n. to 935 *gratis*. *et odit* i.e. se: see n. to VI 1022 on Lucretius' love of parentheses like this. 1070 *morbi aeger* i.e. quia morbum sentit, sed quibus e causis fiat nescit: comp. 1053 foll. 1071 *rebus relictis*, well illustrated by Lamb. from Plautus and Terence, means *ceteris rebus relictis*: Caesar and Livy have *omnibus rebus relictis, omnibus omissis rebus, omissis rebus.* 1072 *Felix qui potuit rerum cognoscere causas*; and Epic. in Diog. X 143 οὐκ ἦν τὸ φοβούμενον λύειν ὑπὲρ τῶν κυριωτάτων μὴ κατειδότα τίς ἡ τοῦ σύμπαντος φύσις κ.τ.λ. 1070—1075: men know not the cause of their disease: it is that from want of employment they are possessed with ennui; and from want of right employment they are disquieted with fear of death and suffering after death. If wise, they would study the true system of things, which would teach them the real nature of the eternity to come, and prove to them that they have nothing to fear. Once more his favourite moral.

1076—1094: again why such a craving for life mid troubles and dangers? death cannot be shunned: no nor does length of life create any new pleasure; while the future may bring evil as well as good fortune; and live as long as we may, the eternity of death will ever be the same. 1076 *in dub. periclis*, as 55. 1078 it is possible that the *equidem* of mss. comes from Lucr. as we cannot assume that he followed the mistaken theory, adopted by Cicero and many others, that *equidem* is *ego quidem.* 1081 *proceditur*: see n. to II 1115. 1082 like 957 *Sed quia semper aves quod abest, praesentia temnis.* 1084 *hiantis*, keeping up the metaphor of *sitis.* 1085 has a proverbial smack, as Virg. geor. I 461 *quid vesper serus vehat*; Gell. XIII 11 *lepidissimus liber est M. Varronis ex satiris Menippeis qui inscribitur* nescis quid vesper serus vehat; Livy XLV 8 6 *nec praesenti credere fortunae, cum quid vesper ferat incertum est.* 1087 *Nec prorsum*: see n. to I 748. 1090 *condere saecla*: Hor. od. IV 5 29 *Condit quisque diem*; Plin. epist. IX 36 4 *quamquam longissimus dies cito conditur*; paneg. 80 *cum tibi dies omnis summa cum utilitate nostra, summa cum tua laude condatur*: Virg. ecl. IX 52 has *longos... cantando condere soles*, where Conington says *condere* to bury, for to see go down, and he and Heyne compare Callim. epigr. II 3 'Ηέλιον λέσχῃ κατεδύσαμεν: but such a use is better suited to *sol* or *dies*, than *saecla*; and it seems likely that Lucr. was thinking rather of the technical *condere lustrum*, though what the exact force of that expression is or how far it differs from *facere lustrum*, I cannot tell: yet Livy I 44 2 says *idque conditum lustrum appellatum, quia is censendo finis factus*

est, and Hor. od. II 4 24 *claudere lustrum*; so that the word must have suggested to them the notion of closing and completing: Livy XXXVIII 36 10 *censor...lustrum condidit...lustro perfecto*: so that *condere* is perhaps simply *conficere*: see n. to IV 41. 1091 *Mors aeterna*: 869 *mors inmortalis.*

BOOK IV.

1—25 = I 926—950, except 11 *Nam*, I 936 *Sed*; 24 *percipis*, I 949 *perspicis*; 25 *ac persentis utilitatem*, I 950 *qua constet compta figura*: see Lachmann's explanation of this last variation in notes 1 to 44—47; yet I do not think that Lucr. who like other early writers repeats words and phrases with such indifference, would have hesitated as to a single word *compta* with an interval of two vss.: the fact is *qua constet compta figura* would have been here utterly out of place, because what he says about the *figura* of the universe is said between I 950 and the end of II. 1 foll. Nonius again and again assigns to the fourth book; probably Quintilian also and Nemesianus, as Lach. says, read them in this book. Macrobius on the other hand, sat. VI 2, cites them from the first; and doubtless Virgil too found them there, as he imitates what precedes as well. They clearly belong to I; and can scarcely therefore be in place here, though the first editors, if not the poet himself, inserted them in both places. 25 *persentis*: III 249 he uses *persentiscunt*; but Virg. Aen. IV 448 also has *persentit.*

26—41: having explained the nature of the soul, I now go on to an important question, that of idols or images, which like small films constantly proceed from the surface of all things and float in the air, and often frighten us when sick or asleep: these we must not think to be souls from hell, which have survived the dissolution of the body. 26 *Atque* cet.: so III 31 he begins *Et quoniam docui* cet. 27 *compta*: see n. to I 950 *compta*. 28 *Quove*: see n. to I 57. *ordia prima* a curious transposition of *primordia* to be compared with 313 *ea propter*, VI 962 *et facit are.* 29 *vementer* cet.: comp. II 1024 *tibi vementer nova res molitur* cet. 30 *quae rerum simulacra voc.*: Epic. in Diog. Laert. X 46 τούτους δὲ τοὺς τύπους εἴδωλα προσαγορεύομεν: see n. to I 132 and II 112, where is said that he uses *imago imaginibus simulacra*, as the metre requires, and also *effigiae*, to express these εἴδωλα or τύποι of Epicurus. I have all through used 'idols' and 'image' as perfect synonymes for the synonymes *simulacra* and *imago* respectively. Catius a contemporary of Lucr., with whom Cicero and Cassius make themselves merry in ad fam. XV 16 and 19, used

the word *spectra*; Cicero himself *imagines.* 31 comp. 43 50 *summo de corpore rerum, Quoi quasi membranae* cet. 33—35 comp. I 132 *Et quae res nobis, vigilantibus obvia, mentes Terrificet morbo adfectis, somnoque sepultis, Cernere uti videamur* cet. and see n. there. 34 *figuras* is the word used by Quintil. inst. X 2 15 to express the εἴδωλα or *simulacra*: *illas Epicuri figuras quas e summis corporibus dicit effluere*: Orelli inscr. 4847 *Cum vita functus iungar tis umbra figuris.* 35 *simulacraque luce carentum* adopted by Virg. geor. IV 472. 37 *ne forte* cet. depends on 29 30 *Nunc agere incipiam* cet.: he here emphatically repeats what he said in the similar passage I 132—135, that it is to free man from these baseless terrors he undertakes this question: if it had not been for these fears, οὐκ ἂν προσεδεόμεθα φυσιολογίας: it is, echoes Lucr., the *naturae species ratioque* which alone can free us from them: comp. too what he says in a similar spirit III 31 foll. This passage has the same unfinished disjointed appearance that other passages introducing new subjects present: much that is said, has been similarly said before, or will be repeated presently: we have spoken of this above and shall have to refer to it again in V and VI: it is one of many tokens that the poem is in an unfinished state. 39 *aliquid nostri* is emphatic: Prop. V 7 1 *Sunt aliquid Manes: letum non omnia finit*; III (II) 34 53 *Nec si post Stygias aliquid rest arbiter undas*, as I read; [Ov. trist. IV 10 85 *Si tamen extinctis aliquid nisi nomina restat.*] 41 *discessum dederint*: see notes 1 and n. to I 819. Lucr. uses *dare* with the same latitude as Virgil and other poets: thus I 819 and elsewhere *dent motus* means 'impart motion' to others, but II 311 *dat motus*=facit motus, movetur; I 288 *dat stragem*=causes ruin, V 1329 *dabant equitum peditumque ruinas*=overthrew, but II 1149 *dabunt labem putrisque ruinas*, V 347 *darent cladem magnasque ruinas* are said of the things themselves falling to ruin: comp. too *dare pausam*=facere pausam, cessare; *dare sonitum, crepitum, fragorem*; *palam dedit*=palamfecit: all of which are found in Lucr. Virgil carries this use of *dare* farther perhaps than Lucr.: Aen. XII 575 *Dant cuneum*=faciunt cuneum: comp. too Aen. VI 76 *finem dedit ore loquendi*, which=Lucilius' *pausam facit ore loquendi*: Livy IV 28 6 *dant impressionem*; but 29 3 *impressionem factam*: he first uses *impetum dare*, and after him Tacitus, for *imp. facere.* When we thus find *dare finem, cuneum, motus, ruinas, discessum* etc. with the precise force of *facere finem* etc., one is tempted to look on it as a half-conscious reminiscence of the *do* which survives in *credo abdo condo subdo* and has the same origin as the Greek τίθημι and the Sanscrit *dadhâmi*: see Max Mueller science of language, 2nd series, p. 224 'in Latin it was equally impossible to distinguish between the roots *dâ* and *dhâ*, because the Romans had no aspirated dentals; but such was the good sense of the Romans that, when they felt that they could not efficiently keep the two roots apart, they kept only one, *dare*, to give, and replaced the other

dare, to place or to make, by different verbs, such as *ponere, facere*'. *quaeque* agrees with *primordia*: see n. to II 372.

42—109: that such films or images may be discharged from the surface of things, you may learn in many ways: smoke and heat are emitted in a state of solution; the coats of cicades, the slough of serpents in a state of cohesion: much more then may very thin films from their outermost surface leave things and keep their shape; just so colour is emitted, as you may see, when all things in a theatre take the hue of the awnings overhead: these images are so small as not to be visible separately; coming too from the very surface of things there is nothing to rend them: such images invisible singly, when often repeated may be seen reflected from the surface of mirrors. 42 *effigias*: this form is found below in 85 and 105, and in Plautus and Afranius. 50 Marullus' arrangement of these vss. I believe with Lach. to be right. *Quoi*: it is possible the *Qui* of mss. comes from Lucr. and that *qui=cui* or *quoi*, as *qum* and *qur* are found for *cum* or *quom*, and *cur* or *quor*: *qui*, dat., the mss. of Catullus give in 1 1, 2 3, 23 5: 107 1 *quicquid* for *quoi quid*; and in Virg. ecl. 4 62 either Quintilian has taken Virgil's dat. for a nom. *qui*; or else Virgil's mss. have wrongly taken his nom. *qui* for a dat. *Quoi* and *membranae* are both datives; and we have here another instance of that constr. which is so common in Lucr. as almost to amount to a trick of style: see n. to I 15: *imago* is put, not in the leading, but in the dependent clause: *quoi corpori quasi membranae est imago*: then, being unable to use the dat. *cortici*, he varies the phrase: *vel cortex nomin.* The correction *Quae* makes the sentence solecistic. 52 *cluet vagari*=vagatur. 53 repeated V 882. 54 55 *in rebus res*: 43 and 64 *ab rebus, rerum*; 90 91 *res, e rebus*; 100 foll. *rerum, rerum, rerum.* 58 *Cum teretis* cet.: comp. V 803 *Folliculos ut nunc teretis aestate cicadae Lincunt*: for *teretis* see n. to I 35 *tereti cervice.* 62 *auctas* of A is confirmed against *auctos* of B by Nonius more than once and by Philargyrius; though *vepres* is masc. in other writers: yet Keil's gramm. Lat. V p. 592 '*vepres* generis feminini, ut Titus Livius *has vepres*':? T. Lucretius: in Hor. epist. I 16 8 mss. point perhaps to *benignae* rather than *benigni.* 63 *tenuis*, 66 *tenuia* and repeatedly below this word has the same poetical force which he often gives to *solidus, rarus, celer, profundus* and the like: it means enormously, inconceivably thin and fine: so 88 *suptili filo*: comp. also n. to I 1081 *magnum per inane.* 66 *hiscendi*, of speaking in the lowest whisper: see Mayor Cic. Phil. II 111 *respondebisne ad haec aut omnino hiscere audebis?* 69 *formai...figuram*; Cic. de nat. deor. I 90 *non ab hominibus formae figuram venisse ad deos*; but de off. I 126 *formam nostram reliquamque figuram*; de nat. deor. I 110 *formare figurare colorare*; Lucr. II 778 *ex aliis formis variisque figuris.* 76 *ferrugina*: the various usages of *ferruginus ferrugineus* and *ferrugo* being compared, the colour denoted would seem to be a dark violet, like

that of steel after it has been heated in the fire and cooled: Plaut. miles 1178 *Causiam habeas ferrugineam...Palliolum habeas ferrugineum, nam is colos thalassicust*; answering therefore to Homer's πορφύρεος or οἶνοψ applied to the sea; as in certain weathers the mediterranean has precisely such a colour. *magnis int.* cet.: VI 109 *Carbasus ut quondam magnis intenta theatris Dat crepitum malos inter iactata trabesque*: Propertius has *tam pleno fluitantia vela theatro*, and *Nec sinuosa cavo pendebant vela theatro*: in the theatres at Orange and Pompeii may still be seen the two rows of stone sockets running along the outside of their walls on the top, into which the masts fitted that supported the *vela* or *carbasa*; the *trabes* I presume were cross-beams which passed from one *malus* to another to allow the awning to be unfurled more conveniently. Pompey's great theatre, the first permanent one built at Rome, appears to have been finished the year of Lucretius' death; but the temporary wooden ones of which he had experience were probably constructed on a similar plan. Q. Catulus is recorded to have first spread these awnings: Pliny XIX 23, who calls them *carbasina vela*. [But see Friedlaender Sitteng. II p. 536; and Archaeological Journal vol. 32 p. 286 (J. H. Parker), of the Coliseum: 'it is now clear that there was an awning over the heads of the spectators in the galleries and kept at the height of 20 feet above their heads by masts on which it was suspended. Those at the top were known before by the corbels that supported them, and the holes through the cornice at the top of the building through which the masts passed. We have now found evidence of similar masts at the bottom, supported by corbels in front of the podium. It is probable that the cords which carried the awning were also supported by the columns on the outer edge of the upper gallery, as the distance would be too long for the cords to bear the weight with no intervening support': p. 287 'we also there (on the upper wall) see the mode of fastening the masts on the inner side of the wall to hold them fast.'] 77 *flutant*: III 189 *flutat*. 79 *patrum* cet.: the senators occupying the whole orchestra must have been very marked objects; and to a spectator, like Lucr., sitting in the *cavea* behind them, would have afforded as much room perhaps for the play of light and colour, as the whole of the stage. Aen. V 340 *Hic totum caveae consessum ingentis et ora Prima patrum magnis Salius clamoribus implet*: the last words may be a reminiscence of 1017 *magnis clamoribus omnia complent.* Tac. ann. XIII 54 *intravere Pompei theatrum quo magnitudinem populi viserent. illic...dum consessum caveae, discrimina ordinum, quis eques, ubi senatus percunctantur, advertere quosdam cultu externo in sedibus senatorum...degrediunturque et inter patres considunt.* *decorum*: Prop. V (IV) 1 11 *Curia, praetexto quae nunc nitet alta senatu.* [Juv. III 172 (of a rural in contradistinction to a city theatre) *ipsa dierum Festorum herboso colitur si quando theatro Maiestas...Aequales habitus illic simi-*

lesque videbis Orchestram et populum. 81 Ausonius 'clarae urbes' 5 *Circus, et inclusi moles cuneata theatri*, might defend *theatra.*] 83 *conrident* seems not to occur elsewhere in a classical writer. *correpta*, being gathered up into a small space: v 1223 *Corripiunt divum percussi membra timore*; Sen. epist. 74 27 *honestam vitam ex centum annorum numero in quantum voles corripe et in unum diem coge*; Suet. Domit. 4 *singulos a septenis spatiis ad quina corripuit.* 86 *utraque*: 291 *Aeribus binis quoniam res confit utraque*, and VI 517: Manil. II 904 *Nunc huc nunc illuc sortem mutantis utraque.* 87 *iam*, as now shewn. 88 *filo*: see n. to II 341. 98 (in) *speculis*: see n. to III 623. 101 *Extima* (simulacra) – orae imaginum: comp. 135 *Et cuiusque modi formarum vertere in oras*: they are mere surface with no depth, διὰ τὸ μὴ δεῖν κατὰ βάθος τὸ συμπλήρωμα γίνεσθαι, says Epic. in Diog. Laert. x 48 of the cognate συστάσεις: Cic. de nat. deor. I 123 of Epicurus' gods, *ut homunculi similem deum fingeret liniamentis dumtaxat extremis, non habitu solido*; and Macrob. sat. VII 14 4 calls them *inani figura*: Aen. VI 292 *tenuis sine corpore vitas Admoneat volitare cava sub imagine formae* will illustrate Lucr.: comp. the κοιλωμάτων of Epic., Diog. x 46; the word occurs in III 219 *Extima membrorum circumcaesura*, with same sense. 104 *rerum similesque*: see 79 and n. to II 1050. 105 *singillatim* cet.: Locke essay II 8 12 *since the extension figure number and motion of bodies of an observable bigness may be perceived at a distance by the sight, it is evident some singly imperceptible bodies must come from them to the eyes* etc. 106 *tamen* belongs to *cum*: v 479 *tamen cum sint ea quae moveantur*; 518 *tamen cum lucida signa ferantur*; 1088 *Muta tamen cum sint*; VI 140; 678; II 71: see also n. to II 29. 108 *Nec rat. al. servari*: he means that unless they were inconceivably thin they could not pass unscathed through certain obstacles, for instance the air; by number then they make up for fineness, so as at last to be visible, *adsiduo crebroque repulsu.*

110—128: learn now how fine these images are: and first let me remind you how exceedingly minute first-beginnings are: think of the smallest animalcule, then of its heart or eye, then of the atoms which form its soul: what is their size? touch again a strong-scented herb with the tips of two fingers: what an amount of smell it emits! [what then must be the size of the atoms of smell? from all this you may conceive how thin these images or idols may be, and yet consist of material atoms:] such then fly about on all hands unseen unfelt. 110 *quam tenui*: in the words of Epic. in Diog. x 47 τὰ εἴδωλα ταῖς λεπτότησιν ἀνυπερβλήτοις κέχρηται. 112 *Sunt infra* cet.: see n. to II 138 and III 274 *Nec magis hac infra* cet. 114 *id quoque*, as well as the other point. *exor. rer. Cunct.*: see n. to II 333. 116 *quorum*=ut eorum; as II 970: how greatly would the revelations of the microscope have strengthened his argument! 123 *Praeterea* with reference to *primum*

of 116: in 120 *praeterea* merely connects its clause with those immediately preceding. 124 *panaces* is plur. from *panax*: the Greeks used the forms ἡ πανάκεια, τὸ πάνακες and ὁ πάναξ: Galen. de simpl. med. VIII 4 says εἴθισται οὐκ οἶδ' ὅπως ἤδη σχεδὸν ἅπασιν οὐ πάνακες ἀλλὰ πάνακα προσαγορεύειν τὴν πόαν ταύτην; and Lucr. is not likely to have used the masc. πανακής. 125 *Habrotoni*: Dioscor. III 26 says the Romans called this ἀψίνθιουμ Πόντικουμ. *centaurea*: see n. to II 401: both Virg. geor. IV 270 *Cecropiumque thymum et grave olentia centaurea*, and Lucan IX 918 *Et panacea potens et Thessala centaurea...fumoque gravem serpentibus urunt Habrotonum* seem to have been thinking of Lucr. 126 *duobus* i.e. digitis, for *digitis* doubtless followed, must have been proverbial: Plaut. Bacch. 675 *Quid...Sic hoc digitulis duobus sumebas primoribus?*; Persa 793 *Ne, sis, me uno digito attigeris*: Terence so uses *uno digitulo* and *digito uno*. 128 they have no force and therefore are *cassa sensu*, can one by one make no impression on any of the senses.

129—142: besides these images which come from things, there are others which form in the air of themselves and present the outlines of all kinds of shapes, giants mountains rocks beasts.—This passage, as Lach. has proved, is clearly a subsequent addition of the poet's, like several other passages, unconnected with the context; for 143 *Nunc ea* cet. directly refers to 128: for a possible explanation of the strange disorder of these vss. in the mss. see vol. I p. 30. Christ and others would put them after 109: but with that paragraph too they have no proper connexion. Lucr. refers to the συστάσεις or spontaneous appearances in the air, as a supplement to his discussion of the ἀπόρροιαι or images from the surface of things, not wishing to leave this question altogether untouched, because Epicurus had called attention to it, though it has not much bearing on his general argument: 735 he again refers to these, *passim simulacra feruntur, Partim sponte sua quae fiunt aere in ipso.* Diod. Sic. III 50 4 speaking of parts of the coast of Africa illustrates well what Epicurus and Lucr. meant: at certain seasons he says συστάσεις ὁρῶνται κατὰ τὸν ἀέρα παντοίων ζῴων ἰδέας ἐμφαίνουσαι· τούτων δ' αἱ μὲν ἠρεμοῦσιν, αἱ δὲ κίνησιν λαμβάνουσι, καὶ ποτὲ μὲν ὑποφεύγουσι ποτὲ δὲ διώκουσι κ.τ.λ. 132 *in hoc caelo* means in this lower part of the heaven called air: Epic. in Diog. X 48 καὶ συστάσεις ἐν τῷ περιέχοντι ὀξεῖαι διὰ τὸ μὴ δεῖν κατὰ βάθος τὸ συμπλήρωμα γίνεσθαι. *qui*: see n. to III 94. 135 *in oras*, that is the *extima pars*, the *extrema liniamenta*, as explained and illustrated to 101 *Extima*: comp. 166 *oris*, and Accius 484 *Scandit oras, laterum texta flamma Vulcani vorax.* 137 *mundi* =caeli, of course. 138 *Aera mulcentes*: Cic. Arat. 88 *Igniferum mulcens tremebundis aethera pinnis*; 184 *quam flatu permulcet spiritus Austri.* 138—142 such appearances seem to have tickled the fancies of the poets: the Socrates of the Clouds saw νεφέλην κενταύρῳ ὁμοίαν Ἠ παρδάλει ἢ λύκῳ ἢ ταύρῳ: Shakespeare's Antony all the objects mentioned by Lucr.

a cloud that's dragonish, A vapour sometime like a bear or lion, A tower'd citadel, a pendant rock, A forked mountain or blue promontory With trees upon't; while *that which is now a horse even with a thought The rack dislimbs*; his Hamlet *a camel, a weasel, very like a whale*, perhaps the very *belua* of Lucr.; Wordsworth *an Ararat, a lion, a crocodile.*

143—175: images stream incessantly from the surfaces of all things: some things they pass through, by others they are broken; from others, at once hard and bright, they are reflected back: they stream as constantly from things, as light from the sun, so that as soon as a mirror is turned to a thing, its image appears in it at once: often too the sky in a moment is overcast with thick clouds: what a multitude then of these thin images must in an instant be shed from them, to allow of these being seen by us! **143** foll. Epic. in Diog. X 48 *ἡ γένεσις τῶν εἰδώλων ἅμα νοήματι συμβαίνει· καὶ γὰρ ῥεῦσις ἀπὸ τῶν σωμάτων τοῦ ἐπιπολῆς συνεχὴς συμβαίνει...σώζουσα τὴν ἐπὶ τοῦ στερεμνίου θέσιν καὶ τάξιν τῶν ἀτόμων ἐπὶ πολὺν χρόνον κ.τ.λ.* and Macrob. sat. VII 14 4 *censet Epicurus ab omnibus corporibus iugi fluore quaepiam simulacra manare, nec umquam tantulam moram intervenire quin ultra ferantur inani figura cohaerentes corporum exuviae*: Plut. def. orac. 19 explains the *πολὺν χρόνον*, by saying how ludicrous it is that these idols should appear in all directions during *ἀπλέτους ἐτῶν περιόδους*, often when the beings from whom they emanated have long been burned on the fire or have rotted in the earth. **146** *alias* is most simply taken for 'other things', except those mentioned afterwards; when the turn of the argument in 150 causes perhaps a slight anacoluthon: it might be 'some', as if he had intended a second or third *alias* to follow; but changed the constr. instead. **147** and **152** *vitrum*: 602 *Qualia sunt vitrei, species qua travolat omnis.* **147** (in) *aspera*: see n. to III 623. **150** foll. here and in what follows his theory involves him in enormous difficulties, some of which he gets over successfully; but hardly the present one. Glass he says lets every image pass: but mirrors, viz. of metal, do not let them even penetrate the surface, but send them back at once. And yet a little quicksilver would have made the glass hurl them back better even than the brightest polished metal; and surely he must have seen sometimes imperfect images sent back from glass. **152** *neq. aut.* recurs I 857, V 366, VI 103, 779: it is found in Plaut. aulul. 30; where Wagner cites Cic. ad fam. V 12 6: III 561 *nec autem.* **153** *quam*: the rel. has same force as in *qua est prudentia, quo animo traditur* and the like: it =therefore *ita meminit* cet. **160** *celer*: see n. to 63 *tenuis*: *celer* femin. is archaic: Ennius has *acer hiemps*; Livius Andron. *celer hasta*; Apul. met. X 31 *haec alacer*; a poem of Nero's time *volucer fama, silvester aedon*: on the other hand we find the masc. *celebris, salubris*, etc. in Tacitus and even Cicero and Livy: *celer* in fact is merely the abbreviation of *celeris*, as *puer* of *puerus*; Ennius having *acris somnus*, as well

as *acer hiemps*; and the genders were separated for distinction's sake: see Buecheler Lat. decl. p. 4. 166 *oris*: comp. 135 *in oras* and 101 *Extima*: the *ab rebus* of 163 shews of course that it is *oris rerum* of which he is speaking. 167 *res*, the images, which are *res* or real things in being, as much as the things from which they come: 160 *celer his rebus dicatur origo*; 235 *in luci quae poterit res Accidere ad speciem quadrata, nisi eius imago*; 690 *mitto iam dicere quam res Quae feriunt oculorum acies visumque lacessunt*; and also I 132 *Et quae res nobis, vigilantibus obvia, mentes Terrificet*: see n. there. *ibi* i.e. in speculo. *respondent* i.e. *oris* of the thing from which the images come. 168—175 these vss. appear to me to have nothing to do with the συστάσεις of 129—142, with which Lach. connects them: the sense is obscure and briefly put; but they are a continuation of the argument immediately preceding, and illustrate *quam facili et celeri ratione* images are produced; for the clouded sky can only be seen by means of them, and each image forms an inexpressibly small part of the whole. 168 *caeli Tempestas . . fit turbida foede*: Virg. Aen. XII 283 *it toto turbida caelo Tempestas telorum*; geor. I 323 *Et foedam glomerant tempestatem*: *foeda tempestas* is a very favourite expression of Livy. 169 *Tempestas*: II 32 *Praesertim cum tempestas adridet*, and V 1395. 170—173 = VI 251—254, except 170 *rearis* for *reamur*. 171 *caeli . . cavernas*: 391 *Sidera cessare aetheriis adfixa cavernis*; as Cic. de suo consul. in de div. I 17 *Aetheris aeterni saepta atque inclusa cavernis*. Lamb. quotes Cic. Arat. 252 *late caeli lustrare cavernas*, and Varro in Nonius p. 46 *Nubes aquali frigido velo leves Caeli cavernas aureas subduxerant*: Varro de ling. Lat. V 19 *Ennius item ad cavationem* caeli ingentes fornices; so that doubtless his own *cavernas* had reference to this derivation of *caelum*. 172 *tae. nim. nocte*: Virg. geor. I 328 *media nimborum in nocte*. 173 *atrae* cet.: Aen. XII 335 *circumque atrae formidinis ora*. 174 *Quorum quantula* cet.: and therefore the images being so prodigiously thin, what a number must leave in order to impress our sense on earth.

175 *eam rat.*: the *ratio* between the *imago* and the overcast sky is such that no sum can express it.—Comparing what precedes, esp. 163—167, I certainly take the meaning to be: sometimes we see a bright sky covered in a few moments with thick clouds: well, the sky is so covered first; and then we see it by images shed from the clouds, which, singly invisible, only become visible by continuous repetition, the ratio of their thickness to that of the clouds being something so small as to be almost inexpressible by words or figures: how inconceivably numerous then must they be for so many to have reached us in so short a time! But Prof. Mayor writes to me: 'Lucr. is speaking, 164 165, of two things, the rapidity with which these images are forming and their universal diffusion: *quantula pars* seems not to relate to the thinness of the image of these faces of horror, but to its narrowness as contrasted with the

faces themselves which fill the whole width of the sky'. From nothing in Lucr. or Epicurus or any of their expositors, ancient or modern, have I been able to gather what their conception was, if they had one, of the superficial extent of an image; whether for instance when you saw a thing of large extent, you saw it by a succession of single images, or of many images, advancing in parallel order and preserving their relative positions.

176—229: the velocity with which these images travel is enormous: light things made of fine atoms often travel very swiftly, as sunlight; it is natural then that these images should do the same; of which too there is a constant succession one following on the other like light or heat from the sun: again these images proceed from the very surface of things and should therefore travel more swiftly than light: a proof of the prodigious swiftness of these images is this: put water in the open air, and at once all the stars of heaven are reflected in it. As images come from all things to the sight, so do things producing smell taste sound and the like; so that all the senses are similarly moved. 179 *quem quaeque locum*: see n. to I 966 *quem quisque*: it=in quemcumque locum haec vel illa tendunt. The wretchedly scanty fragments from the 2nd book of Epicurus περὶ φύσεως, published in the vol. Hercul. II, are yet enough to indicate that Lucr. followed it as his guide: col. 1 we find περὶ δὲ τῆς κατὰ τὴν φορὰν ὑπαρχούσης ταχυτῆτος νῦν λέγειν ἐπιχειρήσομεν. πρῶτον μὲν—ἡ λεπτότης μακρὰν τῆς ἀπὸ τῶν αἰσθήσεων λεπτότητος—ταχυτῆτα τῶν εἰδώλων—ἀνυπέρβλητον δείκνυται: col. 2 εἰ δ' ὑπερβαλλόντως κοῦφα δῆλον ὡς καὶ ὑπερβαλλόντως ταχέα κατὰ τὴν φοράν: col. 11 καὶ ἔτι τὰς φορὰς ἀνυπερβλήτους τοῖς τάχεσιν κέκτησθαι· our v. seems intended to express Epicurus' κατὰ τὴν φοράν. *numine*: see n. to II 632. 180—182=909—911. 180 *Suavidicis* seems not to occur except in these two places: Plaut. capt. 56 has *spurcidici versus*; and Ter. Phorm. 213 *saevidicis dictis.* 181 182 clearly borrowed from Antipater of Sidon who was popular in Rome a generation before Lucr.: he says in praise of Erinna anthol. II p. 19 epigr. 47 7 Λωίτερος κύκνου μικρὸς θρόος ἠὲ κολοιῶν Κρωγμὸς ἐν εἰαριναῖς κιδνάμενος νεφέλαις: the *gruum clamor in aetheriis* is probably from Homer's κλαγγὴ γεράνων οὐρανόθι πρό: Aen. X 264 *sub nubibus atris Strymoniae dant signa grues atque aethera tranant Cum sonitu fugiuntque notos clamore secundo*: the *aethera tranant* perhaps from 177 *tranantibus auras* and 182 *in aetheriis.* 182 *in aether. nub.*: see n. to I 250 and II 1115. 184 *celeris*, as 160 *celer.* 186 *e primis*: II 313 *Primorum.* 187 *cuduntur*: I 1044 *Cudere enim crebro possunt* i.e. plagae. 190 *protelo* explained to II 531: comp. 187 188: 'brightness is goaded on by brightness, the foremost beams ever urged on by those behind' J. E. M. 192 *Inmemorabile per spatium* recurs VI 488: par. lost VIII 113 *distance inexpressible By numbers that have name*: and comp. Epicurus himself in Diog. X 46 ἡ διὰ τοῦ κενοῦ

φορὰ κατὰ μηδεμίαν ἀπάντησιν τῶν ἀντικοψάντων γινομένη πᾶν μῆκος περιληπτὸν ἐν ἀπερινοήτῳ χρόνῳ συντελεῖ. 193 *parvola* i.e. simulacra, has force by being thus placed at the beginning instead of after *quae*; they are exceedingly small and therefore the propulsion is easier: the ambiguity in *parvola causa* was quite indifferent to Lucr.: see n. to I 57 *perempta* and to V 1414 *res illa reperta.—parvola* must then = tenuissima; as if the poet only thought of their thinness, and of no other dimension. But Prof. Mayor says 'they have at their back a slight cause, not too violent which might destroy them, i.e. succeeding images'. Here again, as above, the immense difficulties of the theory seem to occasion a vagueness in the poet's mind and therefore his language; if indeed we have his own words complete. I have often thought myself of a hiatus: Susemihl I see assumes a v. to be lost between *parvola* and *causa*: I have thought too of *prae ria* (i.e. simulacra) for *parvola*. *causa*: the cause behind which impels them is the body from which they come constantly emitting from the surface images, as the sun discharges light; this therefore is to be compared with 189 *Suppeditatur* cet. 194 *prŏpellat*, as VI 1027 *Aer a tergo quasi provehat atque propellat*; which also illustrates the sense: *procul* seems to belong to *prov. atque prop.* 195 *Quod sup.*: see n. to I 50. *vol. lev.*: comp. 745 *Quae cum mobiliter summa levitate feruntur, Ut prius ostendi*; and Epic. cited to 179. 197 *quaevis* must not be too much pressed, as if it meant all things without exception: they can *enter*, not necessarily pass through, hard things, even wood and stone, though they may get broken in them. But then the necessity of his theory compels him to devise the curious explanation in 150 of things at once hard and bright throwing the images back. 198 *permanare*, stream clear through, not merely *penetrare*. 203 *rigare*: V 593 *Tantulus ille queat tantum sol mittere lumen, Quod maria ac terras omnis caelumque rigando Compleat et calido perfundat cuncta vapore*: the repetition of *caelum* in our MSS. is harsh; but the *mare ac terras* made it almost inevitable, and such repetitions are in the manner of Lucr. and the old writers. 204 *igitur*: comp. 520 and 865, and see n. to I 419. 205 *emissum* is another ἅπαξ λεγόμ. 206 to change *Quone* to *Nonne* can hardly be right: the sense you want is not simply 'don't you see they ought to travel faster?', but 'don't you see they ought to travel immensely faster?'; and why should the common formula *nonne vides* have been altered? *Quo* is for *quanto* as so often in the best writers: sometimes *ne* is annexed to the relative, as in Catull. 64 180 *quemne ipsa reliqui?* i.e. patrisne quem reliqui?; 183 *Quine fugit?* i.e. coniugisne qui fugit?: but here *Quo* is the interrogative and more resembles Plaut. cist. IV 1 1 *Nullam ego me vidisse credo magis anum excruciabilem, Quam illaec est: quae dudum fassa est mihi, quaene infitias eat?*; Hor. sat. II 3 295 *Quone malo mentem concussa?*; Lucan VII 301 *Quone poli motu, quo*

caeli sidere verso, Thessalicae tantum, superi, permittitis orae?: comp. too Hor. sat. II 3 316 *illa rogare, Quantane?*; [Ov. met. III 476 *quam cum vidisset abire, 'Quone fugis? remane'...clamavit*: and see Ussing to Plaut. Amph. 690.] Lach. gives a curiously inappropriate illustration from Quintil. I 10 3 *aut quo melius vel defendet reum* cet. where *quo melius* has a force exactly contrary to *quo citius* here. 207 208=II 163 164; and comp. what precedes; for *debent nimirum!* expresses what *quo . . debere!* does here.

211 *dīu*: with *diu* and *divo* comp. *fretu* and *freto* and n. to I 720, and *humu* and *humo* in Nonius p. 488: *diu*, abl. of *dius*, is found in the best mss. of several authors. 213 the *sidera mundi* are the reflected stars of the reflected heaven which answer in the water to the real stars of the real heaven: 167 *Res ibi respondent simili forma atque colore*: see n. to 419. 215 *accidat in*: *accidere ad* is the usual constr. as 236: Wak. compares Ov. fasti V 360 *Accidere in mensas ut rosa missa solet.* 218 foll. are placed here to shew that it is natural the sense of sight should be affected only by images coming into contact with the eye, since all the other senses are likewise affected solely by material objects; but certainly the parallel is introduced very abruptly: 217—229 recur VI 923—935 with very slight difference; they appear to have been written for VI, and brought hither by the poet, perhaps as a temporary makeshift: see notes 1. 220 *exesor* seems not to occur out of Lucr. *moerorum*: see n. to I 29 *moenera*: *moerorum* is found three times in the Aeneid joined with *agger*: Lucr. has also *noenu, poeniceus, poenibat*; Cic. pro Mil. 33 *poenitus*, 35 *poenitor*; the corp. inscr. Lat. I has *moiro moiros moerus* among a hundred other instances of *oi* or *oe* for *u*. 224 *amaror*: whether Virg. geor. II 247 used this word is a moot point; see Gellius I 21 and the editors of Virgil. 225 *fluenter* seems another ἅπαξ λεγόμ. 227 *interdatur*: 868 *interdatus.* 229 see notes 1: *sentire sonare* is by no means an unpoetical expression; and to object to the *sentire* in two consecutive vss. in two senses is strange in an editor of Lucr.: see 201 202 *caeli, caelum*, and note to I 875. With reference to the above argument of Lucr., Macrobius sat. VII 14 5 says not unaptly *ad haec renidens Eustathius 'in propatulo est' inquit 'quod decepit Epicurum. a vero enim lapsus est aliorum quattuor sensuum secutus exemplum, quia in audiendo et gustando et odorando atque tangendo nihil e nobis emittimus, sed extrinsecus accipimus quod sensum sui moveat. quippe et vox ad aures ultro venit et aurae in nares influunt et palato ingeritur quod gignat saporem et corpori nostro adplicantur tactu sentienda. hinc putavit et ex oculis nihil foras proficisci, sed imagines rerum in oculos ultro meare'.*

230—268: we feel a thing in the dark, and know it to be the same as we saw in the light: if what we feel is square, what square object can come in the light to our sight except its image, since a like effect must

have a like cause? images proceed from things in all directions; but as we only see with the eyes, we only see images where we turn our sight to them. Again an image pushes before it the air between it and the eye; this air all sweeps through the pupil, and lets us judge of the distance of the object seen; and all this takes place almost instantaneously: we do not see the images singly, but we see the object by a continuous succession of these; just as we do not feel each particle of wind, but the effect of the whole: and so too we thump the surface of a stone, but feel its inner hardness. 233 *Cons. causa*, since the effect is *consimilis*. 235 *luci*, 232 *luce*: comp. I 976 *fine*, 978 *fini*, 979 *fine*. 236 *ad speciem*, 242 *speciem*; as V 707 and 724 *Ad speciem* for the sight or eyes: *speciem* and *oculi speciem* are so used by Vitruvius: I 321 *speciem*= potestatem videndi. 245 *internoscere curat* = of course *curat ut nos internoscamus*; *intern.* therefore is equivalent to an acc. of the subst.: see n. to I 331 and 418. [The *ut videamus* makes the *internoscere* = *ut internoscamus* less violent: surely Ennius' *audere repressit* quoted by Lach. is more harsh: comp. too Cic. epist. XV 15 2 *ut ipsum vinci contemnerent*; Plaut. Bacch. 156 *hic vereri perdidit*: see Draeger hist. synt. I p. 305.] 255 habit making the whole appear one and the same operation; just as in fact habit makes the seeing a solid object and the inference that it is solid appear but a single operation. 262 *unorsum*: Lach. compares *oinvorsei* in the inscr. de bacchanal. 19, and *undecim unanimus unanimitas unoculus*. 266 *extremum*, *summum*, *penitus*, *in alto*, the same thing in different words to increase the force of the contrast: a very favourite artifice of his.

269—323 (347): the image is seen not at the surface of the mirror, but beyond and within it in the same way that real objects are seen through and beyond an open door, namely by two airs: it was explained above, 246 foll., how the distance of an object from the eye was perceived by means of the air between it and the eye; thus you see first the distance of the open doorway by one air, then comes another air between the doorway and the object outside, which lets you see how far it is beyond the door: thus too the mirror and its distance from us is seen by means of its image which propels before it the air between the mirror and the eye, which first sees this air, then the mirror; then when we have perceived the latter, the image which goes from us to it, comes back to us, but drives onward an air which is seen before the image, and makes it appear so far distant beyond the mirror. Again our image in the mirror has the right answering to our left, the left to our right, because on coming against the mirror it is dashed straight out in the reverse direction, like a wet plaster-mask thrown against a post. Again a series of mirrors disposed in a certain way can bring into view all the recesses and turnings of a building. Again concave mirrors shew our image with right answering to right, left to left. Again the images step

and move as we do, because when you withdraw from any part of the mirror, images cannot come from that part of the mirror. 271 *Quod genus*: see n. to II 194. *vere*: to me it appears marvellous that Lach. should say '*vere* non modo supervacaneum est, sed caret sensu': it clearly refers to the real objects seen by images coming from them directly in contrast to the mere reflexions from a mirror, of yourself for instance: 258 *res ipsae perspiciantur.* 271 and 278 *transpiciuntur*, 272 *transpectum* occur in no other writer of authority. 274 *duplici geminoque* appears a pure tautology: 451 *Binaque per totas aedis geminare supellex*; 766 *mortis letique potitum*; 1004 *facies atque ora tuantur*; v 5 *Pectore parta suo quaesitaque praemia*; 1025 *bona magnaque pars*; 1085 *aquam dicuntur et imbris Poscere*; 1078 *genus alituum variaeque volucres*; 1191 *faces caeli flammaeque volantes.* 277 *perterget*: 249 *Et quasi perterget pupillas* and 252 *Et nostros oculos perterget longior aura*: comp. the whole argument there. 278 *et illa*: and then those things by means of the images streaming from them incessantly. 280 *protrudit* cet.: comp. the quite similar argument 246 foll. 290 *Illic* i.e. ab speculo tantum semota. 291 *utraque* i.e. both in the case of things seen through the open door and in a mirror: see n. to 86. Lucr. seems to have thoroughly felt that distance was not perceived by the eye, but was a matter of mere inference. 298 *fronte* = a fronte: the mask must be dashed straight on the post so as to preserve the right lines of the features in front: otherwise if it were struck obliquely so as to distort the lines, the face could not keep its shape when struck back. 301 *e laevo sit*: I 186 *fierent iuvenes subito ex infantibu' parvis*; Ter. Andr. 37 *feci ex servo ut esses libertus mihi*; Aen. X 221 *nymphasque e navibus esse Iusserat*; Pers. VI 11 *Quintus pavone ex Pythagoreo*; Livy IX 39 7 *fit ex secunda prima acies.* *mutua*: see n. to II 76. 303 *sexve*: Florus II 18 (IV 8) *sex septemve*: it is possible that Lucr. wrote *Qu. et. sex*, on the analogy of *sex septem*, which occurs in Cicero Terence and Horace, though 577 Lucr. has *Sex etiam aut septem*: just as Sen. Herc. Fur. 1006 has *Bis ter* on the analogy of *ter quater.* 308 *speculo*: the omission of the prep. seems harsh; and perhaps *e* should be read: but *speculo* may be the abl. instrum. 309 *rusum*: see n. to III 45. 310 *eodem eādem eaedem idem* plur. and *isdem*, as said to I 306, are found as disyll. in Lucr.: the last three are never with him trisyll.

311 '*specul.* it is simpler to take as gen. after *latuscula*' J. E. M. 313 *Dextera sim.* i.e. images turned as a man would be if looking at himself, right answering to right, left to left; whereas, as he has just explained, the image from a flat mirror is exactly inverted, right answering to left, left to right. *ea propter* i.e. propterea: see n. to 28: Bentl. after Servius Virg. ecl. VII 31 reads in Ter. Andr. 959 *Ego deorum vitam ea propter*; Nonius too quotes the word from Pomponius, and *hac propter* from Varro. 315 *elisa bis*, just as if the plaster-mask were first

struck out as described above, and then were struck back by a second process to its original direction. 316 *Circum agitur*: not struck out at all, but only twirled round so as to face its object. 317 *docet*: he gives the mirror ἐνέργεια, as 579; and 153 *quam meminit levor praestare salutem.* *conv. ad nos* 'seems to mean simply to turn round towards us. The plane mirror makes the image return back foremost, the concave mirror makes it face round and so return fronting us' J. E. M. The phenomenon described by Lucr. in these last verses is quite true and simple, whatever be said of his explanations of it, on which indeed he seems not himself to lay much stress. Editors are strangely at sea about a very easy matter. From seeing my image turned upside down in the bowl of a silver spoon I hastily concluded, as I find Gassendi has done, that a concave mirror always gave an image thus inverted. A distinguished mathematical friend has however proved to me both by optical and ocular demonstration that this inversion is caused by the vertical, not in the least by the lateral curvature. A mirror, laterally concave, such as I have before me at this very moment, gives back your image turned as Lucr. asserts, i.e. facing you just as if you were facing yourself, right answering to right, left to left. Probably the Romans had metal mirrors of this shape for the purpose of getting such an image; the other side being convex, so as to suggest to Lucr. his comparison 'lateris nostri'. 323 *ad aequos flexus*: he refers no doubt to the angle of reflexion being equal to the angle of incidence: a fact well known to the Greek and Roman geometers of his day; of which Lucr. therefore would not be ignorant. How far it can be reconciled with his general theory of images, I hardly know: an acute correspondent has pointed out to me many of the difficulties which such an attempt involves. But the mathematician just mentioned shews me in what way he thinks these difficulties may be got over; and indeed we see in the 5th and 6th books that Lucr. was sufficiently indifferent to discordant or seemingly discordant theories standing side by side. My correspondent rightly shews I think that in 320 *recedas* refers to a person moving along a mirror parallel to its plane, not stepping back from it. It must be remembered that the ancient mirrors were but a few inches in diameter; and would perhaps not suggest to Lucr. some difficulties which our large looking-glasses might have done: 322 *Omnia* are all objects generally which can impinge, a ball and the like as well as an image.

324 (299)—378: this theory of images will explain many other things: you cannot gaze on the sun, because of the force with which images come from it, and the seeds of fire mixed in them: the jaundiced see all things of a greenish yellow, because of the atoms of this colour which proceed from them and meet the images: we see out of the dark things in the light, because a bright clear air, advancing before the images of things in the light, purges the eye of the gross air of darkness,

the former air being much more minute and penetrating than the latter: we cannot see what is in the dark, because the gross air comes behind the bright and blocks up the sight against all images: a square tower from a distance looks round, because the images are blunted in their long journey through the air: our shadow seems to follow us and move as we do, because it is really nothing but air without light: one part of the earth after another being shaded from the sun as we advance, and the parts before covered by us left exposed as we leave them. 324 *tueri* appears to be governed by *fugitant* as well as *vitant*: he has elsewhere *fugitant relinquere*, *fugitabant visere.* 325 *tendere* i.e. oculos: Virgil has *Ad caelum tendens lumina*, *oculos telumque tetendit*; Ovid *oculos et bracchia tendens*: I 66 Nonius Lamb. and Lach. read *tendere.. oculos.* 326 *alte*, which generally means 'on high' or 'to a height' or 'depth', seems here to mean 'from on high'; so 1182 *alte sumpta querella*, 'from the depth'; [and Varro Menipp. 272 B (p. 186 Buech.) *At nos caduci naufragi ut ciconiae...alte maesti in terram cecidimus*:] see n. to I 65 *super*, and to II 1153 *superne.* 332 *Lurida*, 333 *luroris*: Paulus Fest. p. 120 *luridi supra modum pallidi*, which seems true of paleness on a dark complexion; so Catull. 64 100 *magis fulgore* (*fulvore* Ritschl) *expalluit auri*: Apul. met. IX 30, with whom *luror* is a favourite word, *lurore buxeo macieque foedata.* 333 *Arquati*: Nonius p. 35 *arquatus morbus dictus, qui regius dicitur, quod arcus sit concolor de virore vel... Varro Eumenidibus* nam ut arquatis et lutea quae non sunt et quae sunt lutea videntur: VI 526 Lucr. has the form *arqui.* 336 *palloribus*: III 154 *Sudoresque.* 339 *init*: see n. to III 1042. 340 *candens lucidus*: II 767 *canos candenti marmore fluctus*; 771 *candens videatur et album*; V 721 *candenti lumine tinctus*: comp. IV 624 *Umida linguai sudantia templa.* 341 *discutit umbras* is in Virg. geor. III 357. 342 *multis part.*: see n. to I 735. 361 *quasi ad tornum terantur*: Virg. geor. II 444 *Hinc radios trivere rotis*, which Servius explains *tornavere, composuere de torno*: Forc. cites also Pliny nat. hist. XXXVI 193 *aliud* (vitrum) *torno teritur*: comp. Petron. frag. 29, who seems at once to imitate and contradict Lucr., *Fallunt nos oculi vagique sensus Oppressa ratione mentiuntur. Nam turris, prope quae quadrata surgit, Detritis procul angulis rotatur*; for see 379 *Nec tamen hic oculos falli* cet.; and indeed Lucr. may have written *rotentur*: *terantur*=exactly *rotatur* of Petron. who says *rotatur* not *rotata est*: the pres. expresses the process going on as long as you look at it. *ad tornum*: II 378 *neque facta manu sunt Unius ad certam formam*: comp. Livy I 19 6 *ad cursus lunae in duodecim menses describit annum*; XLIV 11 5 *non ad eandem crassitudinem structos esse*; XXIX 6 10 *scalas ad editam altitudinem arcis fabricatas*; Caes. de bel. Gall. V 42 5 *turres ad altitudinem valli*; Juv. VI 324 *omnia fient Ad verum.* 363 *adumbratim* seems not to occur elsewhere: Cicero says *non expressa signa sed adumbrata virtutum.* *simu-*

lata: see n. to I 687. Sextus adv. math. VII 208 οὐκ ἂν εἴποιμι ψεύδεσθαι τὴν ὄψιν, ὅτι ἐκ μακροῦ μὲν διαστήματος μικρὸν ὁρᾷ τὸν πύργον καὶ στρογγύλον ἐκ δὲ τοῦ σύνεγγυς μείζονα καὶ τετράγωνον, ἀλλὰ μᾶλλον ἀληθεύειν, ὅτι καὶ ὅτε φαίνεται μικρὸν αὐτῇ τὸ αἰσθητὸν καὶ τοιουτόσχημον, ὄντως ἐστὶ μικρὸν καὶ τοιουτόσχημον, τῇ διὰ τοῦ ἀέρος φορᾷ ἀποθρανομένων τῶν κατὰ τὰ εἴδωλα περάτων κ.τ.λ. 366 *si credis* implies an absurdity: I 1057 *Ipsum si quicquam posse in se sistere credis*; where see note. 368 *lumine cassus*: 377 *spoliatur lumine terra*, V 719 and 757 *cassum lumine corpus*: Aen. II 85 *cassum lumine*, XII 935 *corpus spoliatum lumine*, the sense being quite different: see n. to I 253. 372 *quod l. eius*: a favourite constr. of Livy, as III 14 3 *quod Caesonis sodalium fuit*; XXII 4 1 *quod agri est*; XXX 20 5 *quod roboris in exercitu erat*: and of Terence, as heaut. 1048 *quod dotis dixi*: Catull. 22 21 *manticae quod in tergo est*. [Draeger hist. synt. p. 421 for *quod eius* quotes Livy V 25 and other passages: for Lucr. and Catullus see what precedes and follows there.] 374 *e regione* i.e. recta linea: comp. VI 344 *E regione locum quasi in unum cuncta ferantur*; and other passages of Lucr. Cicero and Livy there cited. 376 *lana trah.*: fresh wool at the same time constantly taking the place of what is consumed. 378 *abluit umbras*: 875 *sitis de corpore nostro Abluitur*, an equally expressive metaphor.

379—468: in all this the eyes are not deceived; what they see, they rightly see; it is the mind that errs in the inferences it draws: this applies to thousands of things in which the senses seem to be mistaken; when we are in a ship which is moving, it seems to be at rest, and things which it passes to be in motion; the stars which are in perpetual movement, appear to stand still; if you look down a long colonnade, the roof and floor and the sides seem at the other end to converge to a point; out at sea the sun appears to rise from the water and to set in it; the parts of a ship under water look bent and twisted upwards; when clouds scud across the sky, the stars seem to move the other way; if you press the eyeball beneath, you see all things double; when fast asleep in a small room in the dark, you often think you see daylight and are travelling over wide distances: in all this the error lies in the opinions which the mind superinduces upon what the senses really perceive. 383 *diximus*, in 368 foll. 385 *naturam rerum* here=causas rerum. 386 *vit. oc. adfingere*: Cic. de imp. Cn. Pomp. 10 *ut neque vera laus ei detracta oratione mea neque falsa adficta esse videatur*. 387 *Qua veh. navi*: see n. to I 15 *capta...quamque*. 391 *cavernis*: see n. to I 171. 392 *adsiduo sunt motu*: elsewhere he uses the more common constr. *esse in motu*: see n. to I 999. *motu esse* without the adj. could hardly be said; but *adsiduo* implies the state or condition of the motion; and Madvig Lat. gram. 272 2 teaches that both *eodem statu* and *in eodem statu esse, manere* may be said. 393 *longos*=longinquos: Servius Aen. XI 544, quoted by Forc., 'Sallustius *et Metello procul agente longa spes auxilio-*

rum'; [auct. bell. Afr. 51 6 *aquatione enim longa et angusta utebatur.*] **394** *suo..corpore claro*: I 38 *tuo recubantem corpore sancto*; 413 *meo diti de pectore*; II 102 *suis perplexis figuris*; 730 *meo dulci labore*; V 876 *suis fatalibus vinclis*; VI 417 *suasque praeclaras sedes*; 618 *suis radiis ardentibus*: the usage is archaic; as Ennius ann. 52 *aegro cum corde meo*, 55 *Teque, pater Tiberine, tuo cum flumine sancto*; Virg. follows with *suo tristi cum corde, tuo perfusi flumine sacro, suo cum gurgite flavo.* **397** the constr. seems to resemble some of the instances given in n. to I 15: the *Extantis...montis* is joined by attraction with *inter quos* because it is nearest: if the *inter quos* preceded the *montis* there would be nothing harsh or unusual in the constr.; but the *Extantis* cet. is put first to give it emphasis: it is an anacoluthon, but a natural one, as on beginning he had not determined what should be the end of the sentence; and not so harsh as de fin. III 11 *ceterae philosophorum disciplinae, omnino alia magis alia, sed tamen omnes, quae rem ullam virtutis expertem aut in bonis aut in malis numerent, eas non modo nihil adiuvare arbitror*: the corrections of Lach. and others are weak and improbable. **404** *iubar* i.e. solis: V 697 *tremulum iubar haesitat ignis*; Aetna 333 *Purpureoque rubens surgat iubar aureus ostro*: Apuleius by four different imitations shews he understood Aen. IV 130 *iubare exorto* of the sun. **409** Festus p. 375 *veruta pila dicuntur quod..habeant praefixa* (Paulus supplies *quod veluti verua habent praefixa*) *Ennius li.* X cursus quingentos saepe veruti; Virgil and Tibullus have the form *veru*, and Virg. the adj. *verutus.*

414 *At conlectus*, 436 *At maris*, 447 *At si*: *at* here=denique; as also 998 *At consueta*, 1007 *At variae*; 1165, 1168, V 650, 1028, 1361, 1379, 1436: this use of *at* in transitions is common enough in Cicero; see Mayor's edition of Halm Phil. II 7. *conlectus aquae*: III 198 *lapidum conlectum*; Aetna 294 *Pellit opus collectus aquae*: Forc. cites from Frontinus *si collectus pluvialis aquae* cet. *digitum non altior unum*; very similar is Livy XXI 61 10 *raro umquam nix minus quattuor pedes alta iacuit*, [and auct. bell. Afr. 15 1 *nequis miles ab signis* IV *pedes longius procederet*:] but the law is usually restricted to *plus minus amplius maior minor*: Virg. ecl. III 105 *Tris pateat caeli spatium non amplius ulnas.* **416 417** Il. Θ 16 and Hes. theog. 720, had made this notion familiar to poets, though perhaps Virg. geor. II 291 and Aen. VI 577 was also thinking of Lucr., *despectum..patet* suggesting *patet..suspectus.*
416 *inpete* here denotes simply size, which seems to be derived from the primary meaning of force and vehemence: so V 200 *quantum caeli tegit impetus ingens*, for there seems no allusion there to a revolving heaven; and VI 186 *Extructis aliis alias super impete miro*; V 913 *tanto membrorum esse impete natum* seems to express both force and size: Caes. de bel. Gall. III 8 *in magno impetu maris atque aperto*, compared with 9 7 *in vastissimo atque apertissimo oceano* and 12 5 *vasto atque aperto mari*, extent seems to be the chief notion expressed: Mela III 6 *Lusitania trans*

Anam...primum ingenti impetu in altum abit; Stat. silv. IV 2 23 *effusaeque impetus aulae Liberior campi.* 417 *caeli..hiatus*, perhaps with reference to Ennius' *caeli palatum* after the Greek. 418 I now think that *caelum* must be corrupt; for which we should perhaps read *volucrum*, or *atque avium*, or the like: comp. his *corpora volantum*, and *pennipotentum*: the birds seen flying about among the clouds would be a striking object: Aen. v 512 *Illa notos atque atra volans in nubila fugit... Iam vacuo laetam caelo speculatus et alis Plaudentem nigra figit sub nube columbam. Decidit exanimis vitamque reliquit in astris Aetheriis*; III 243; XII 256 *penitusque in nubila fugit.* 419 *mirando*, because it is wondrous strange that heaven should be there in that small puddle: VI 692 *mirando pondere saxa*; V 1171 *mirando corporis auctu.* See notes 1 and 2 to IV 213. Shelley in the Recollection 'We paused beside the pools that lie Under the forest bough: Each seemed as 'twere a little sky Gulfed in a world below; A firmament of purple light, Which in the dark earth lay...In which the lovely forests grew, As in the upper air...There lay the glade and neighbouring lawn, And through the dark green wood The white sun twinkling like the dawn Out of a speckled cloud.' 426 *ductu*; Cic. de rep. II 11 *cuius is est tractus ductusque muri*; Manil. II 287 *at quae divisa quaternis Partibus aequali laterum sunt condita ductu*; 274 *In tris aequalis discurrit linea ductus*; German. 237 *Tris illi laterum ductus*; Lucan IV 419 *insolito contexunt robora ductu.*
427 *in perpetuum*: Plaut. most. 146 *non videor mihi Sarcire posse aedis meas quin totae perpetuae ruant*; Creech compares Aen. VII 176 *perpetuis soliti patres considere mensis*; VIII 183 Virgil translates by *Perpetui tergo bovis* Homer's *νώτοισι διηνεκέεσσι*: but these all give the primary meaning of the word. 429 *trahit fastigia*, poetically making the colonnade the agent; instead of *trahitur in fastigia.* 436 *clauda*: Livy XXXVII 24 6 has *claudas mutilatasque naves*; but here perhaps *clauda* is rather the reverse of *recta*, as *claudicat* in 515 *libella si..claudicat hilum*, VI 1107 *qua mundi claudicat axis.* 437 *aplustris*: see n. to II 555. 438 *rorem salis*: Virg. geor. IV 431 *rorem amarum*, Aen. I 35 *spumas salis*, X 214 *campos salis*: see also n. to I 496. 450 *florentia*: I 900 *flammai fulserunt flore coorto*; 'Tertull. apol. 11 *lumina floruisse*' J. E. M.: Oehler there cites de patient. 2 *florem lucis huius*; adv. Marcion. IV 42 *caelum luminibus floruisset*: comp. Aen. VII 804 *florentis aere catervas*, where Servius says 'Ennius et Lucretius *florens* dicunt omne quod nitidum est'; he then quotes inaccurately V 1442 *florebat puppibus.* 451 *Binaque..geminare*: 274 *duplici geminoque fit aere. geminare* neut. as the compound *ingemino* so often is. 453 *sopore Somnus*: III 431 *in somnis sopiti.* 458 *Concl. loco*: Hor. sat. I 4 76 *Suave locus voci resonat conclusus.* 459 *Mutare* = *ἀμείβειν*: Sen. epist. 104 8 *quid prodest mare traicere et urbes mutare?*; Pliny II 132 *locum ex loco mutans rapida vertigine.* 460 *severa*: V 1190 *noctis signa severa*: the epithet

seems to belong to the notion of night: it appears to be the opposite to what is gay and smiling: Ov. met. VII 184 has *mediae per muta silentia noctis.* 462 comp. 590 *Cetera de genere hoc monstra ac portenta loquontur...ideo iactant miracula dictis*; and V 845. 463 *violare fidem* usually means to break your own faith; here it means to impair the credit of others: but 505 *Et violare fidem primam convellere tota Fundamenta*, the sense is much the same as here: I 694 *Et labefactat eos* i.e. sensus *unde omnia credita pendent.* 464 foll. Tertull. de anima 17 *non enim sensum mentiri sed opinionem: sensum enim pati, non opinari; animam enim opinari.* 465 *opinatus* seems a ἅπαξ λεγόμ. for *opinatio*: with *opinatus animi quos addimus ipsi*, and 467 *res secernere apertas Ab dubiis, animus quas ab se protinus addit* comp. Epic. himself in Diog. X 50 τὸ δὲ ψεῦδος καὶ τὸ διημαρτημένον ἐν τῷ προσδοξαζομένῳ ἀεί ἐστι κατὰ τὴν κίνησιν ἐν ἡμῖν αὐτοῖς, συμνημμένην τῇ φανταστικῇ ἐπιβολῇ, διάλειψιν (not διάληψιν) δ' ἔχουσαν καθ' ἣν τὸ ψεῦδος γίνεται: and comp. all that follows with Sextus adv. math. VII 210 foll.: Epicurus shews that every perception is true; but that some opinions are true, some false, and points out how the true are to be distinguished from the false; Cic. acad. pr. II 45 *dixitque* (Epicurus) *sapientis esse opinionem a perspicuitate seiungere*: *perspicuitas* is his translation of Epicurus' ἐνάργεια. With respect to one of the cases put by Lucr. above, Cic. l. l. 80 says *Timagoras epicureus negat sibi umquam, cum oculum torsisset, duas ex lucerna flammulas esse visas; opinionis enim esse mendacium, non oculorum.* It appears from this book of Cicero that the ship of 387 foll. and the bent oar of 438 were also stock illustrations in the schools: Macrob. sat. VII 14 enumerates others as well as these. 468 *ab se*=ipse: 465 *addimus ipsi*: nearly the same is its force III 271 *initum motus ab se quae dividit ollis*; Plaut. miles 940 *dat nunc ab se mulier operam*; trin. 182 *a me argentum dedi*; and *a se fecit* in an inscr. Zell. epigr. 1011.

469—521: if a man teaches that nothing can be known, how does he know that? how distinguish between knowing and not knowing? on the truth of the senses all reasoning depends, which must be false if they are false: nor is one sense more certain than another; all being equally true; nor is the same sense at one time more certain than at another: all reasoning, nay life itself would at once come to an end, if the senses are not to be trusted; as in any building, if the rule and square are wry, every part will be crooked and unstable, so all reasoning must be false, if the senses on which it is grounded are false. 469 *nil sciri* cet. refers no doubt to the academical philosophy which as said in Cic. acad. pr. II 61 *confundit vera cum falsis, spoliat nos iudicio, privat adprobatione, omnibus orbat sensibus*: comp. too Macrob. sat. VII 14 20 where the preceding illustrations of Lucr. are referred to, *quae academicis damnandorum sensuum occasionem dederunt.* But in Cic. l. l. 75 it is also said of Chrysippus, *qui fulcire putatur porticum stoicorum, quam multa ille*

contra sensus cet. so that Lucr. may well be alluding to his paradoxes. *id quoque nescit* cet.: Metrodorus of Chios a great admirer of Democritus pushed the paradox to this extreme: Cic. l. l. 73 says of him *initio libri qui est de natura 'nego' inquit 'scire nos sciamusne aliquid an nihil sciamus, ne id ipsum quidem, nescire aut scire, scire nos, nec omnino sitne aliquid an nihil sit'*: the original is quoted by Sextus and Eusebius. 471 *mittam*=omittam: III 961 *mitte*, VI 1056 *mirari mitte*. *contendere causam* is not easy to explain: Lamb. compares Cic. in Catil. II 25 *causas ipsas, quae inter se confligunt, contendere*; but there *contendere* is simply to compare together, as in pro Sex. Rosc. 93: a sense scarcely suitable here; unless the words can mean 'contendere meam causam cum illius omittam': Gronov. obs. III 19 compares it with *cernere vitam, cernere bellum, pugnare pugnam* and the like; and this is probably right: it will therefore=contendere et agere causam; cum contentione agere causam. *causans* for *causam* would be an easy emendation. 472 *Qui capite* cet. appears to be a proverb: Plaut. curc. 287 *Quin cadat, quin capite sistat in via de semita*; Ter. ad. 316 *Sublimem medium arriperem et capite in terram statuerem*: but its precise force is not very clear: Gronov. l. l. explains it by 'qui sibi non constat, qui se ipse evertit, qui cernuat': this would suit the context; but a man who tumbles on his head, does not place his head where his feet were. Perhaps by a man putting his head where his feet should be is meant that he assumes as his premiss that nothing can be known, which is the conclusion that ought to be, but cannot be proved by such a premiss: the man thus inverts himself in a manner. Locke essay IV 11 3 uses very similar language, 'I think nobody can in earnest be so sceptical as to be uncertain of the existence of those things which he sees and feels. At least he that can doubt so far, whatever he may have with his own thoughts, will never have any controversy with me; since he can never be sure I say anything contrary to his opinion', and 8 'if all be a dream, then he doth but dream that he makes the question; and so it is not much matter that a waking man should answer him.'

478 *Invenies*: whatever he may say, you will find that no other real answer can be given, except that all truth depends first on the senses. *primis*: comp. II 1080 and III 250. 484 *quae tota* cet.: I 694 *unde omnia credita pendent*. 493 *coniuncta*: I 449 *aut his coniuncta duabus Rebus ea invenies*: and see n. there: it would then mean here the conditions, of light etc., which are necessarily connected with colour; but this can hardly be right: it is rather to be compared with II 742 *cognoscant corpora tactu Ex ineunte aevo nullo coniuncta colore*; and means simply 'and so see the objects which are seen by colour': anyhow the phrase is curious. 497 *ipsi repr. sese* i.e. the same sense at one time cannot refute the same sense at another: Cic. acad. pr. II 79 *eo enim rem demittit Epicurus, si unus sensus semel in vita mentitus sit,*

nulli umquam esse credendum; and with all that precedes comp. the very similar reasoning of Epic. himself in Diog. x 31 πᾶσα γὰρ αἴσθησις ἄλογός ἐστι καὶ μνήμης οὐδεμιᾶς δεκτική· οὔτε γὰρ ὑφ' αὑτῆς οὔθ' ὑφ' ἑτέρου κινηθεῖσα δύναταί τι προσθεῖναι ἢ ἀφελεῖν οὐδ' ἐστὶ τὸ δυνάμενον αὐτὰς διελέγξαι. οὔτε γὰρ ἡ ὁμοιογενὴς αἴσθησις τὴν ὁμοιογενῆ διὰ τὴν ἰσοσθένειαν, οὔθ' ἡ ἀνομοιογενὴς τὴν ἀνομοιογενῆ· οὐ γὰρ τῶν αὐτῶν εἰσὶ κριτικαί. οὔθ' ἡ ἑτέρα τὴν ἑτέραν· πάσαις γὰρ προσέχομεν. οὔτε μὴν λόγος· πᾶς γὰρ λόγος ἀπὸ τῶν αἰσθήσεων ἤρτηται. **500** *dissolvere* is a technical term often used by Cicero and Quintilian; and means to explain away an objection and prove it not to be to the point. **502** *rat. eg.*: *rationis egentes* occurs in Ovid met. xv 150 amid many other imitations of Lucretian language. **504** the antithesis between *manifesta* and *manibus emittere* is doubtless intentional. **505** *viol. fid.*: see n. to 463. **507** *Non modo..., vita quoque ipsa*: the absence of the adversative particle in the second clause is rare in the Latin, though so common in the English idiom: Tacitus has *non modo, etiam* more than once, and hist. II 27 *nec solum apud Caecinam..., Fabii quoque Valentis copiae*: Livy XXVIII 39 11 *ita bello adflixit ut non modo nobis, absit verbo invidia, ne posteris quidem timenda nostris esset*, Madvig inserts from conjecture *sed* after *nobis*: Sen. epist. 77 6 *mori velle non tantum prudens..., etiam fastidiosus potest*, [and 85 33 *non ex ebore tantum Phidias sciebat facere simulacra, faciebat ex aere*;] Mela III 27 *nandi non patientia tantum illis, studium etiam est.* Such sentences as Livy XXII 27 9 *nec se tempora aut dies imperii cum eo, exercitum divisurum*; I 25 3 *nec his nec illis periculum suum, publicum imperium servitiumque obversatur animo*, seem like in principle. **508** *nisi credere* cet.: Locke essay IV 11 8 'such an assurance of the existence of things without us is sufficient to direct us in the attaining the good and avoiding the evil which is caused by them etc.' *ausis* = velis; as often in Plautus: Men. 697 *etiamne audes mea reverti gratia?*; truc. II 4 71 *Non audes aliquod dare mihi munusculum?*: comp. *sodes* and *sis*. [See Ussing to Plaut. asin. 473, and comp. Cic. epist. IX 10 1 *non sum ausus Salvio nostro nihil ad te litterarum dare.*] **515** *libella* 'consists of two sides joined at the top by a cross bar, over which a line and plummet descends as a pendulum' Rich's companion. *claudicat*: see n. to 436. **517** the rhythm of this v. was perhaps suggested by Il. Ψ 116 Πολλὰ δ' ἄναντα κάταντα πάραντά τε δόχμιά τ' ἦλθον, on which Demetrius Phal. cited by Clarke remarks μεμίμηται τῇ κακοφωνίᾳ τὴν ἀνωμαλίαν. **518** *quaedam vid. velle, ruantque* i.e. ut alia videantur velle ruere, alia autem ruant, prodita et haec et illa cet.: comp. 652 *Esse minora igitur quaedam maioraque debent*; v 1237 *Concussaeque cadunt urbes dubiaeque minantur.* *vid. velle*: III 577 *videtur Ire anima ac toto solui de corpore velle.* **520** *igitur* beginning an apodosis: see n. to I 419. *ratio* cet.: πᾶς γὰρ λόγος ἀπὸ τῶν αἰσθήσεων ἤρτηται, says Epic. in Diog. x 32.

522—548: the way in which the other senses are acted upon, may now be easily understood: sound is corporeal, since it is by striking on the ear that it excites sensation; often too the atoms of sound in passing through the narrow windpipe graze it and make it rough; again a long speech spoken in a loud voice takes much strength and substance from a man: smoothness of sound comes from smoothness of its atoms, roughness from roughness in them. 522 *quo pacto*: 'that is manifestly by impulse, the only way which we can conceive bodies operate in' says Locke essay II 8 11: what follows has many points of singular agreement with what Lucr. says here and in parts of II. 523 *scruposa*: the metaphor is obvious, though the word does not appear to occur elsewhere in this sense; and *scrupeus* has also this meaning, but only in late writers. 524 foll. comp. auctor ad Heren. III 21. 524 *auditur* cet.: so Epic. in Diog. X 52 τὸ ἀκούειν γίνεται ῥεύματός τινος φερομένου ἀπὸ τοῦ φωνοῦντος ἢ ἠχοῦντος ἢ ψοφοῦντος ἢ ὅπως δήποτ' ἀκουστικὸν πάθος παρασκευάζοντος. τὸ δὲ ῥεῦμα τοῦτο εἰς ὁμοιομερεῖς ὄγκους διασπείρεται κ.τ.λ. 525 *pepulere.. sensum*: Cic. de nat. deor. II 144 *priusquam sensus ab his* i.e. vocibus *pulsus esset*. 529 *arteria*: this neut. form appears to occur only here. *asperiora*, perhaps with reference to its technical name, the *aspera arteria*, τραχεῖα ἀρτηρία: see Cicero and Celsus in Forc. 530 *coorta* is neut. plur.; as it appears to be also in VI 465: comp. Livy V 12 7 *seditio intestina maiore mole coortă*: but VI 511 *turba maiore coacta*, *coacta* must be abl. 532 *quoque* belongs equally to the three words *expleti ianua oris*; for the meaning is *os quoque expletur et eius ianua raditur*: the *ianua* here is the *fauces*, through which the voice enters the mouth. *expleti*: VI 1203 *sanguis expletis naribus ibat*: the word in these two places has doubtless its usual meaning, though Lach. says the sense which Donatus and Ennius give it of *exinanitus* would be appropriate here. 534 *laedere*: auctor ad Heren. III 21 *laeduntur arteriae si, antequam leni voce permulsae sunt, acri clamore compleantur.* 535 *corporis*: see n. to I 1039. 545 *sub murmure*: 785 *Omnia sub verbone creat natura*: *sub* here, as often, signifies 'at' 'immediately upon', and sometimes has the same force as the simple abl.: comp. VI 413 and 416 *uno sub tempore* and n. there: Livy II 55 1 *sub hac pessimi exempli victoria delectus edicitur*; Ov. met. IV 523 *Bacchi sub nomine Iuno Risit*; Manil. I 147 *sub origine rerum*; Hor. od. III 7 30 *Sub cantu querulae despice tibiae*; Celsus V 26 31 *sub frigido sudore moriuntur*; [Caes. b. civ. I 27 3 *sub ipsa profectione*; Hirt. b. Gall. VIII 49 2 *sub discesso suo*; Nepos Attic. 12 3 *quod quidem sub ipsa proscriptione perillustre fuit*; and perhaps Sen. rhet. suas. VII 11 *mortem sub infamia quaerere.*] The accus. is more common: Ov. fasti III 642 *Sub verbum querulas impulit aura fores*; [Caelius ap. Cic. epist. VIII 4 4 *statim sub mentionem et convicium obtrectatorum*; Cic. epist. X 16 1 *sub eas statim recitatae sunt tuae*; ad Q. fr. II 1 1 *mense Decembri*

sub dies festos;] and *sub haec, sub haec dicta, sub hanc vocem*, so frequent in Livy: [see Draeger hist. synt. I p. 619 I g for abl., and 2 c for accus.] *mugit*: Aen. VIII 526 *Tyrrhenusque tubae mugire.. clangor.* 546 *cita* i.e. murmure: 608 *sonituque cientur* i.e. loca; V 1251 *canibusque ciere.* 547 whoever has travelled over Helicon and seen and heard its rushing torrents, will feel the fitness of making them the haunts of swans; and he who has not visited the place, might well believe that they would come to sing their dirge after having, in the words of Helicon's own poet, λοεσσάμενοι τέρενα χρόα Περμησσοῖο Ἢ Ἵππου κρήνης ἢ Ὀλμειοῦ ζαθέοιο: the reading of course is not certain here or in 546, where the archetype was injured, as here, in the middle of the v.; but *cucnei torrentib.* when some letters were damaged, might easily get to *necti* (or *nete*) *tortis.*

549—594: as the sounds are coming out, the tongue forms them into articulate words; every one of which is distinctly heard near at hand; but at a greater distance the sound is indistinctly perceived, as it gets broken in passing through the air: again a single word often strikes the ears of a whole multitude; it must divide therefore into so many distinct words: often too voices are echoed distinctly back, sometimes six or seven in answer to one: these the wonder-loving multitude believes to be the voices and music of nymphs and woodland gods, Pan and the rest. 550 *recto ore*: see n. to II 217 and 226. 551 *articulat*: Plat. Protag. 322 A φωνὴν καὶ ὀνόματα ταχὺ διηρθρώσατο τῇ τέχνῃ: lexicons cite for the Latin word only late authorities besides Lucr.: Cic. de nat. deor. II 149 quoted by Lamb. *in ore sita lingua est, finita dentibus. ea vocem inmoderate profusam fingit et terminat atque sonos vocis distinctos et pressos efficit.* *verborum daedala*: it governs a gen. also V 234 *naturaque daedala rerum*: comp. too n. to I 7. 552 *Formatura*, 556 *formaturam*: see n. to I 653. 553 *Hoc ubi*: so 622, 658, VI 274: IV 1092 *quoniam, Hoc*: see n. to III 531. *una pr. Per v. quaeque*: V 990 *Unus enim tum quisque.* 556 *Servat* cet.: Epic. l. l. τὸ δὲ ῥεῦμα τοῦτο εἰς ὁμοιομερεῖς ὄγκους διασπείρεται, ἅμα τινὰ διασώζοντας συμπάθειαν πρὸς ἀλλήλους καὶ ἑνότητα ἰδιότροπον. *formaturam* and *figuram* must surely be synon. here. 560 *illam...ver. sen. quae sit*: see n. to I 15. 567 *Obsignans* seems to mean impressing on the ears the form of the word, as the seal impresses its mark on the wax. 568 *auris incidit*, a rare construction: Tac. hist. III 29 *obruitque quos inciderat*; Marcus Aurel. rescr. ap. Vulc. Gallic. vit. Avid. Cass. 2 *ipse sponte..fatales laqueos inciderit*; Paulus quoted by Lach. has the accus. and Apul. more than once; Aen. IX 721 *animos deus incidit* M, but most mss. *animo*; in Livy there appears to be no ms. authority for the accus.: I 326 *mare quae inpendent*, where see note; Lucil. ap. Non. p. 502 *gladium incumbat*: and so *insinuare latebras* and the like. 572 *videas, possis*: see n. to I 327. 575 *opacos* seems to mean here

enveloped in darkness; as Aen. III 508 *Sol ruit interea et montes umbrantur opaci*; though it may only mean that they are lost in the woods on the hills. 576 *Quaerimus et* cet.: Aen. III 68 *Condimus et magna supremum voce ciemus*; this might be added to n. to I 253.
578 *ipsi* seems to be in answer, with reference to *Unam cum iaceres*.
579 *docta referri*: Lach. compares Hor. epist. I 14 30 *Multa mole docendus aprico parcere campo*. 580 *Haec loca* cet.: Milton par. reg. II 296 *to a superstitious eye the haunt Of wood-gods and wood-nymphs*; Aen. VIII 314 *Haec nemora indigenae fauni nymphaeque tenebant*.
581 *faunos*: these old Italian, nay peculiarly Latin gods he joins with Greek satyrs and nymphs and Pan, as Virg. l. l. and geor. I 10 *faunique...dryadesque*; to which v. Probus says *rusticis persuasum est incolentibus eam partem Italiae quae suburbana est saepe eos* i.e. faunos *in agris conspici*; and Varro tells us it was in the saturnian metre they spoke *in silvestribus locis*; as does Ennius ann. 222 *Vorsibus quos olim faunei vatesque canebant*: but Ovid and Horace likewise join the fauns with the nymphs and satyrs; and the latter, od. I 17 1, even brings *Faunus* from Lycaeus to Lucretilis. *esse locuntur*: not a common constr. but occurring in Virg. ecl. V 27; Aen. I 731; Hor. epist. I 20 21; Tib. I 5 1; Ov. rem. 647; her. 16 259; fasti VI 3; Sen. epist. 58 22; Nepos VII 7; even Cicero ad Att. I 5 6, [and XVI 10 1: *mecum loqui* with the infinitive occurs epist. ad fam. VI 8 1, XIII 28 a 1: so XII 5 1 *loquebantur omnes...in Syria te esse, habere copias* cet.; Q. Cic. de pet. 50 *bene te ut homines nosse—appellare—petere—esse et loquantur et existiment*; Mart. IV 61 10 *loquebaris Hereditatis tibi trecenta venisse*.]
582 foll. Mart. IX 61 11 *Saepe sub hac madidi luserunt arbore fauni, Terruit et tacitam fistula sera domum*; and see what follows. 583 *taciturna silentia* is found in Ovid ars II 505; and *muta silentia* occurs thrice in his met.; Aen. II 255 *tacitae per amica silentia lunae*. 585 *Tibia*: Rich in his companion gives a drawing of a simple pipe or flageolet from the statue of a faun, exactly resembling that now used by the Roman *pifferari*, to whom it has doubtless come down in uninterrupted succession from antiquity. 587 *capitis velamina*: I 930 and IV 5 *Unde prius nulli velarint tempora musae*: Ov. her. 5 137 *Cornigerumque caput pinu praecinctus acuta Faunus*. 588 *Unco* cet.: V 1407 *Et supera calamos unco percurrere labro*; Prop. III (IV) 17 34 *Capripedes calamo Panes hiante canent*. 589 *silvestrem...musam* is in Virg. ecl. I 2. 594 *avid. auric.*, 'avet captare auriculas alienas': Pers. I 22 *Tun, vetule, auriculis alienis colligis escas*; II 29 *qua tu mercede deorum Emeris auriculas*: Mart. XIV 142 *Si recitaturus dedero tibi forte libellum, Hoc focale tuas asserat auriculas*, against a too greedy reciter: comp. *aures dare, donare, praebere, commodare*: Lucr. himself *attentas auris reposco*.

595—614: sounds will come through places, through which you

cannot see, because their particles can pass by crooked ways, while images can only travel through straight passages: again one voice bursts into many similar voices, as a spark of fire into many sparks; so that all the corners of a building may be filled with sound; but even sound is deadened and broken in coming through such obstructions. 598 *Conloquium* cet.: see notes 1: there is in this a mixture of seeing and hearing, exactly as in Hor. sat. II 8 77 *tum in lecto quoque videres Stridere secreta divisos aure susurros*: quite as harsh or harsher is 262 *fierique perinde videmus Corpore tum plagas in nostro*; I 256 *avibus canere undique silvas* (videmus): Aen. IV 490 *mugire videbis Sub pedibus terram*; Prop. II (III) 16 49 *Vidistis toto sonitus percurrere caelo*; Varro Atac. ap. Victorin. 2503 *Vidit et aetherio mundum torquerier axe Et septem aeternis sonitum dare vocibus orbes.* 600 *renutant* seems to occur in no other writer of authority. 602 *vitrei*; see n. to III 97; probably its confusion with the adjective has saved the *ei* here: for the sense comp. 147 and 152. 605 *Dissuluit*: see n. to III 1031 *lucunas.* 606 *suos in ignis*: i.e. vicissim in plurimas ignis scintillulas; as is seen especially in sparks from a wood fire. 607 *abdita retro*: though hidden away from the sight, they are filled with the sounds which circle all about them. *retro*: Sen. Hipp. 93 *per altas invii retro lacus Vadit tenebras*; Stat. Theb. II 13 *ipsaque tellus Miratur patuisse retro*; Aetna 140. 608 *fervunt*: for form and meaning see notes 1 and n. to II 41. *cientur*: 546 *regio cita.* [With this and the previous line compare Lucil. XXX 48 *Omnia tum endo muco* (μυχῷ) *videas fervente micare.*] 609 *derectis*; see n. to VI 823 *derigit.* 611 *at* cet. i.e. nemo non potest, understood from *nemo* in 610: see n. to II 1038: *Saepem ultra*, which I at once hit upon myself before I saw Bernays' ed., seems to me to suit the sense far better than other readings; and also to be nearer the mss.: *m*, as often, became *s*; then with *saepesupra* for *saepesultra*, comp. I 846 *illis iura* for *illi supra.*

615—632: taste is quite as easy to explain; the flavour is pressed out from food by chewing and passes into the pores of tongue and palate: the flavour is pleasant, if its atoms are smooth, but the contrary, if these are rough: when the food has got below the palate, the flavour is no longer perceived, and the food is then indifferent, if only it can be digested. 615 *qui*: see n. to V 233. 619 *coëpit*: neither Ritschl pref. to trinummus p. LXXVI nor Lach. can find another certain example of this trisyll. use: but the latter says of the former 'quod hanc formam rationem habere negat, mihi non persuadet; nam ab *apiendo* ut fit *copula*, ita *coïpere coëpisse coëptum*, e quibus *coepisse* non minus recte quam cetera contrahi potuit eo modo quem in *coemisse* notavimus libro II 1061': and there are at least four passages of Plautus where *coëpi* seems well established; as merc. 533 *Ecastor iam bienniumst, quom mecum rem coëpit*, where Ritschl on no authority reads *occeptavit*; the other

passages he has not yet edited. 622 *Hoc ubi* cet.: that this was also the doctrine of Democritus is abundantly shewn in Theophr. de sensu et sensil. 65, 66, 67 and elsewhere. 624 *Umida sudantia* is very Lucretian: comp. *candens lacteus*, *candens lucidus*; and esp. 212 *serena Sidera ..radiantia*; v 490 *altaque..fulgentia templa.* *templa*: v 103 *humanum in pectus templaque mentis*: see n. to I 120: the *linguai templa* may have reference to the shape and position of the palate and the Greek οὐρανός. 627 *fine* = tenus, a use illustrated by Bentl. to Hor. od. II 18 30: Neue I p. 222 gives many instances from Caesar, Sallust etc.: I might add others from Plautus, Ovid etc.

633—672: I will now explain why what is one creature's meat is another's poison: all creatures differ within and without; therefore they consist of different atoms; and the atoms being different, the pores and passages of the whole body, and also of the mouth and palate must differ: thus if food is pleasant to one creature, its smooth elements must suit the pores of that creature; if unpleasant, then its rough elements must more readily adapt themselves to them; and thus in disease, what was before sweet to a man may become bitter. 633 *almus*: II 390 *liquor almus aquarum.* 634 *quareve*: see n. to I 57 *Quove.* *triste*: see n. to I 944. 635 *perdulce* appears not to occur elsewhere. 636 *differitas*: see n. to I 653: this however is a most strangely formed word: [it occurs again and again in Arnobius.] 637 *ali* recurs VI 1226 *quod ali dederat*; *alei* is found twice in the corp. inscr. Lat. and *ali* in one doubtful case: see also n. to I 263 *alid.* *fuat* we had already II 383. Democritus taught exactly what Lucr. teaches here: Theophr. de sensu et sensil. 63 σημεῖον δὲ ὡς οὐκ εἰσὶ φύσει τὸ μὴ ταὐτὰ πᾶσι φαίνεσθαι τοῖς ζῴοις, ἀλλ' ὃ ἡμῖν γλυκὺ τοῦτ' ἄλλοις πικρὸν καὶ ἑτέροις ὀξὺ καὶ ἄλλοις δριμὺ τοῖς δὲ στρυφνόν, and 69 ἁπλῶς δὲ τὸ μὲν σχῆμα καθ' αὑτό ἐστι, τὸ δὲ γλυκὺ καὶ ὅλως τὸ αἰσθητὸν πρὸς ἄλλο καὶ ἐν ἄλλοις, ὥς φησιν: G. H. Lewes' physiol. of common life p. 59 'that one man's meat is another man's poison is a proverb of strict veracity'. 638 *serpens*: Pliny VII 15 cited by Lamb., and XXVIII 35 gives similar accounts of the power of human spittle over serpents; and Hardouin illustrates them from various sources. 639 *mand. conf. ipsa*: Lucil. XXX 50 Muell. *conficit ipse comestque.* 640 'Arnob. I 11 *veratrum venenum est hominibus*' J. E. M. 641 *coturnicibus*: this is confirmed by Hesych.: ἐλλέβορος· βοτάνη ἣν ἐσθίουσιν οἱ ὄρτυγες, which his recent editor strangely alters to ὄρυγες: Galen often mentions the same fact, as de temperam. III 4 at end καὶ τοῖς μὲν ὄρτυξιν ἐλλέβορος τροφὴ τοῖς δ' ἀνθρώποις φάρμακον, almost a translation of Lucr.; Pliny too X 197 *venenis capreae et coturnices, ut diximus, pinguescunt*: V 899 *pinguescere saepe cicuta Barbigeras pecudes, homini quae est acre venenum*; comp. this and VI 970 foll. with Diog. IX 80 καὶ τῇ μὲν αἰγὶ τὸν θαλλὸν εἶναι ἐδώδιμον ἀνθρώπῳ δὲ πικρόν, καὶ τὸ κώνειον ὄρτυγι μὲν

τρόφιμον, ἀνθρώπῳ δὲ θανάσιμον, and Sextus pyrrh. hyp. I 57 *τὸ γοῦν κώνειον πιαίνει τοὺς ὄρτυγας*, and Lewes l. l. p. 62 'the poisons are food to many, the rabbit devouring belladonna, the goat hemlock, and the horse aconite'. For the quantity of *cōturn.*, see n. to I 360 and III 504: whether the *cocturn.* of A is the genuine spelling or a corruption, I am unable to decide: the former is maintained by Fleckeisen, Rhein. mus. VIII p. 232, and Zeyss, Philolog. XXXI p. 309; the latter by Lach.: which would seem to be the truth, if we can trust the old grammarians, Caper p. 2248, and one in Keil's gramm. Lat. V p. 573 'coturnicem antiqui dixerunt, nunc cocturnix'. 643 *ante*, I 814, 895 and elsewhere. 647 *Ext. mem. circ.* we had above III 219. 651 *ipso* refers to *ore* as well as *palato*, they being singled out from the other *membra*, as those which have to do with taste: comp. 1044 *partis genitalis corporis ipsas*; and VI 1175 *ipso venientes ore patente.* 652 *maioraque* i.e. quaedam maiora: comp. n. to 518: *foramina* is the subject. 654 *multangula* appears to occur in no other writer of a good age. 660 *contractabiliter* too seems a *ἅπαξ λεγόμ.*: *a*, as twice in *contractans.* 668 *corpora* i.e. the *levissima* of 659. 669 *cetera*: *Aspera nimirum hamataque* of 662. 671 Lachmann's note is quite beside the point: he gains nothing by transposing these vss.; for, as just shewn, the *quae corpora* of 668 and the *cetera* of 669 are the very *levissima* and *Aspera* respectively, for which he makes his transposition. I now incline to reject also Bernays' notion of a lacuna: the mention of honey is somewhat abrupt; but that is explained by the fact that it was proverbial as an illustration of the merely relative notion of sweet and bitter: thus Sextus pyrrh. hyp. II 63 *ἐκ τοῦ τὸ μέλι τοῖσδε μὲν πικρὸν τοῖσδε δὲ γλυκὺ φαίνεσθαι ὁ μὲν Δημόκριτος ἔφη μήτε γλυκὺ αὐτὸ εἶναι μήτε πικρόν, ὁ δὲ Ἡράκλειτος ἀμφότερα.* Now Lucr. has just specified fever with a flow of bile as the cause of this change of sweet to bitter: with this comp. Galen de simpl. med. temp. IV 17 *οὐδὲν οὖν θαυμαστὸν οὐδὲ διὰ τί τὸ γλυκύτατον ἁπάντων μέλι τὸν πικρότατον γεννᾷ χυμὸν καὶ διὰ τί μάλιστα τοῖς ἀκμάζουσί τε καὶ φύσει θερμοῖς καὶ πυρέττουσιν...ὅταν ἀκραιφνεῖ πλησιάζῃ θερμότητι, τὸν χολώδη γεννᾷ χυμόν*: comp. too Sen. epist. 109 7. Lucr. probably got his illustration from Hippocrates. 672 *supera saepe* in II and III: comp. II 391—407 with III 189—195, from which it will appear that honey has many smooth round atoms in it whence it gets its usually pleasant flavour; but at the same time it has a *constantior natura Et pigri latices magis et cunctantior actus* than water, and therefore has more rough and hooked atoms; so that in peculiar states of the tongue and palate, in fever for instance, these latter atoms happen to fit the pores better than the smooth ones, and produce a bitter flavour.

673—686: next to explain smell: it must stream on all sides from many things; but, as in taste, one kind suits one creature, another another; bees are attracted from far by the smell of honey, and so on;

thus each creature is drawn to its proper food and avoids poison. 673 *adiectus*: this rare word is similarly used I 689 *nostros adiectu tangere tactus.* 674 *primam* cet.: so Epic. in Diog. Laert. x 53 καὶ μὴν καὶ τὴν ὀσμὴν νομιστέον ὥσπερ καὶ τὴν ἀκοὴν οὐκ ἄν ποτε πάθος οὐθὲν ἐργάσασθαι, εἰ μὴ ὄγκοι τινὲς ἦσαν ἀπὸ τοῦ πράγματος ἀποφερόμενοι σύμμετροι πρὸς τὸ τοῦτο τὸ αἰσθητήριον κινεῖν κ.τ.λ.: comp. too Locke essay II 8 13. 675 notice *fluens*, *fluctus*, *fluere* employed with his usual indifference to such repetitions. 681 *quo tulerit* i.e. quocumque tulerit. *promissa* of mss. is well defended by N. P. Howard, Journ. of phil. I p. 131: in answer to Lachmann's 'animata et vigentia non videntur *promitti* aut se promittere' he appositely cites Nemes. cyneg. 269 *promissi spatiosa per aequora campi*, said of horses: comp. too Pliny XVI 107 *nec ulla arborum avidius se promittit.* *pro. can. vis*: VI 1222 *fida canum vis*; III 8 *fortis equi vis*; Aen. IV 132 *odora canum vis.* 684 *nidor*: not only is *nidor* used here and elsewhere for *odor*, but VI 987 he has *nidoris odores.*

687—705: one smell will travel farther than another, but none so far as sound; I need not add as the images which excite sight; for it travels slowly and is soon lost, because it comes with much ado from the inmost parts of things, as proved by this that things when pounded or dissolved by fire smell more strongly: the atoms too of smell are greater than those of voice, since often a wall will stop the one and not the other; and thus too dogs often lose the scent. 688 *alio*, *alter*: *alter* thus used for *alius*, though unusual, recurs V 835 *ex alio terram status excipit alter*: just before, 829, he had said *Ex alioque alius status excipere*: so Cic. de rep. (somn. Scip.) VI 12 *uterque plenus alter altera de causa habetur*: *alius* for *alter* is more common: inscr. Lat. I 1007 *Gnatos duos creavit: horunc alterum In terra linquit, alium sub terra locat*; Sen. epist. 94 43 *Ab alio expectes, alteri quod feceris*; [Val. Flacc. I 833 *quarum altera...Ast aliam* cet.;] Livy I 25 5 *duo Romani super alium alius . . corruerunt*; Tac. ann. IV 48; Pliny more than once: Plaut. capt. 8 *alium* for *alterum* is only conjecture; but argum. 2 and 9 *alium* = alterum. *permitti* = promissa of 681: see Gronov. obs. II 13 p. 316 and Forc. 689 *quisquam* in the masc. thus applied to an inanimate thing seems as rare, as its use as an adj. agreeing with an abstract subst. illustrated at I 1077 *quisquam locus.* 693 *facilis* seems here to mean readily absorbing the scent, a sense not very different from the common one 'readily yielding'. 699 *quam vox*: see n. to III 456 *ceu fumus*: this constr. being so common, it is curious that two of the greatest Latin scholars of modern times should have found fault with it: Lamb. says here 'Latine dici non potest *videre licet odorem maioribus principiis constare quam vox*'; and Madvig opusc. pr. p. 312 makes a like objection to III 614 *ut anguis*: 'you might have said *three*; for Bentl. in III 456 alters *fumus*' J. E. M. 704 *calida* is joined with

decurrunt. , *nuntia*: 1032 *simulacra . . nuntia praeclari voltus*; VI 76 *simulacra feruntur . . divinae nuntia formae*. [Nonius p. 215 9 '*nuntius*: neutri apud aliquos non receptae auctoritatis lectum est, sed doctos'.]

706—721: but in the case of the form and colours of things, as well as smells and tastes, some are suited to one creature, unsuited to another: thus for example the lion fierce as he is cannot face the cock. 706 *hoc* refers of course to the argument which ended with 686, that the particles of a thing which excite taste and smell will often fit one creature, not another. It is hardly possible then to contest what Lach. says, that this is another of the passages added by Lucr. and not properly connected with the rest of the poem. 710 *explaudentibus* must mean driving off the night with their noise, as an actor is driven off the stage. 713 *mem. fugai*: Livy XLI 3 4 *si belli hostes meminissent*; 4 4 *Histrorum pauci . . memores fuerunt fugae*: comp. Homer's μνησώμεθα χάρμης and the like: not unlike is 153 *quam meminit levor praestare salutem*; and Virg. geor. I 400; but there and ecl. VIII 88, borrowed from Varius, the negative is introduced; as well as Livy X 29 2 *nec pugnae meminisse nec fugae*; Ov. met. VII 545 *Non aper irasci meminit*; Ael. hist. an. XI 12 φυγῆς οὐδέν τι μέμνηται.—Pliny twice mentions what is here asserted of the lion, VIII 52 and X 48; Aelian four times; Plutarch and others refer to it. Martha, p. 258, says that some one, Cuvier he believes, put a cock into a lion's den: the lion went up to his bugbear and ate him. 716 *interfodiunt*: 'the idea of *through*...is often found with *inter* in Lucr., as IV 716 *inter-fod-* dig a passage through, VI 333 *inter-fug-* fly through, and IV 868 *inter-datus*, distributed through' Prof. Key in trans. of the philolog. soc.: all these words seem peculiar to Lucr. 719 *illis* seems a certain correction for *ilus* (unless Lucr. could say *ībus* as well as *ĭbus*): 9 times at least he has the dat. *ollis*; once, VI 687, the abl. *ab ollis*, elsewhere abl. *illis*: here on the other hand dat. *illis* which seems to me to sound better with *penetrantibus* than *ollis*.

722—748: the mind too receives its impressions from images flying about on all hands, which however are much finer than those by which we see: images are of different kinds, some formed spontaneously in the air, some coming from things or formed from a union of several; and thus we see centaurs and the like, though such never existed, from the chance union for instance of the image of a man and horse; the extreme fineness of such images makes them readily unite, and the wondrous agility of the mind itself at once receives them.—Lucr. in this and the following sections battles manfully and ingeniously with the prodigious difficulties under which the epicurean theories on this question labour. Cicero's philosophical writings are full of clever argument and banter directed against them, sometimes successful, but often captious and unfair. 724 *rer. sim.*: Plut. de plac. phil. IV 8 Λεύκιππος, Δημόκρι-

τος, τὴν αἴσθησιν καὶ τὴν νόησιν γίνεσθαι εἰδώλων ἔξωθεν προσιόντων: Cic. ad fam. XV 16 thus jests with the new epicurean convert Cassius, *fit enim nescio qui, ut quasi coram adesse videare, cum scribo aliquid ad te; neque id* κατ' εἰδώλων φαντασίας, *ut dicunt tui amici novi qui putant etiam* διανοητικὰς φαντασίας *spectris Catianis excitari. nam, ne te fugiat, Catius Insuber epicureus, qui nuper est mortuus, quae ille Gargettius et iam ante Democritus* εἴδωλα, *hic spectra nominat.* 726 *Tenuia* emphatic from its position: see n. to 63. 727 *brattea*: 'videndum est ne barbaram consuetudinem sequantur qui scribunt *bractea*, ut *marcta blacta Aetius Actis auctumnus arctus farctus mulcta*, quae ante quadringentos vel quingentos annos nata sunt' Lach.: see also n. to I 70 *arta*. 729 *percipiunt*: III 28 *voluptas Percipit atque horror*; 80 *Percipit humanos odium*; V 605 *Aera percipiat...ardor*; VI 804 *percepit*: [see Ussing to Plaut. Amph. 1134.] 730 *cientque* cet.: Cic. l. l. 2 *his autem spectris etiam si oculi possent feriri, quod vel iis ipsa occurrunt, animus qui possit ego non video.*

732 *Centauros, Scyllarum* are brought together V 891 foll.: comp. too Aen. VI 286 *Centauri in foribus stabulant Scyllaeque biformes*, probably a reminiscence of Lucr.; Cicero in combating this doctrine brings together *Scyllae Chimaerae hippocentauri.* 733 *Cer. can. fac.* is not like the instances cited in n. to I 474, but may resemble I 119 *Per gentis Italas hominum*: the *Cerbereas* merely defines what the *facies* are. *earum Quarum* cet.: I 134 *coram Morte obita quorum* cet. 'ut appareat eum haec paria ac simplicissima, *eorum Quorum* non improbasse, noluisse autem quae dissimilia essent, sed non satis, coniungere, *earum quorum*' Lach. 736 *sponte sua quae fiunt* cet. i.e. the συστάσεις explained 131 *Sunt etiam quae sponte sua gignuntur. aere in ipso*: *ipso* is used here as II 438 *corpore in ipso*; III 128 *in ipso Corpore*; 483 and 506 *corpore in ipso*; 575 *in ipso corpore*, 590 *corpore in ipso*; VI 224 *in aedibus ipsis*: 579 *Aut extrinsecus aut ipsa tellure*; 806 *terra quoque sulpur in ipsa Gignier*; 1128 *aere in ipso*: II 117 *radiorum lumine in ipso*; III 683 *in ipso sanguine cresse*; that is it merely points the contrast between the thing spoken of and something else: in all these cases *intus in* pretty nearly gives the force of *in ipso*: Sen. Herc. Oet. 1364 *In ipsa me iactate, pro comites, freta Mediosque in amnes*: *ipsa* = medios. 738 *quae confiunt*: V 890 *Ne forte ex homine et veterino semine equorum Confieri credas Centauros posse.* 739 *Nam certe* cet.: Cic. de nat. I 108 uses this as an argument to overthrow the theory in question: *quid, quod earum rerum quae numquam omnino fuerunt neque esse potuerunt, ut Scyllae, ut Chimaerae?* 736—739 observe *fiunt, confiunt, facta, fit.* 741 *equi atque*: Lach. in his most elaborate n. to III 954 goes through the whole range of Latin poetry to determine who can and who cannot thus elide the last syll. of an iambus; and this liberty he peremptorily refuses to Lucr. I am not convinced: his contemporary Cicero whose

principles of versification much resemble his own, could write *rĕtro ad*, *leo et*, *modo ac*; his contemporary Catullus *ioco atque*, *ave atque*. But Lucr., had he thus elided once, must surely it may be said have done so more than once: yet he once and only once, v 849 *debere*, has a hypermetrical verse; twice and twice only he lengthens a short syll. by the caesura, II 27 *fulget auroque*, v 1049 *sciret animoque*; and twice by caesura leaves a long vowel long and unelided, III 374 *animae elementa*, VI 755 *loci ope*; though in five of these six cases Lach. tampers with the text. It strikes me that Lucr. here meant the tangled sound to recal the entangling of two incongruous images. 742 *Haerescit*: II 477 *haerescere*; lexicons give no other instances of the word. *ante* i.e. 726. 746 *prius* i.e. 176 foll. 747 *Quaelibet una*, and therefore even the most incongruous assemblage of things, if they have for the instant formed into one image. 748 *ipsa*, as well as the images.

749—776: so far as what the mind sees resembles what the eye sees, their causes must be like: now the lion we see in mind is the same we see with the eyes, both therefore are seen by images: and thus in sleep we see, for instance one who is dead, by images coming to the mind; the senses and memory being then inactive and not able to detect the absurdity: again images move as we see them in sleep, merely because some are coming others going every instant, so that they appear to be the same in different postures. 750 'I take *quod* to be the conjunction: necessest simili ratione fieri quod videmus (i.e. videre) mente, atque quod videmus (videre) oculis' N. P. Howard: clearly the right explanation. 752 *Nunc igitur*: III 203 and 434 *Nunc igitur quoniam*: the particles imply that having established a principle, he now proceeds to apply it. *docui quoniam*: Aen. v 22 *superat quoniam fortuna, sequamur.* 'Lambinus recte dedit *quoniam docui*, ut in III 203 *Nunc igitur quoniamst animi natura reperta*' Lach.: an illustration not at all to the point; neither there nor in 434 could he have changed the place of *quoniam*: he has here written *docui quoniam* probably for the pleasanter sound: Ov. trist. II 293 *Pallade conspecta, natum de crimine virgo Sustulerit quare, quaeret, Erichthonium*; [Mart. x 36 7 *Non venias quare*; XI 75 3 *Non sit cum citharoedus*:] comp. II 547 and n. there; and III 293. 754 *mentem* cet.: Cic. de nat. deor. I 108 *vos autem non modo oculis imagines, sed etiam animis inculcatis: tanta est impunitas garriendi.* 757 *profudit*: Paulus Fest. p. 228 '*profusus*...abiectus iacens. Pacuvius *profusus gemitu murmuro*': III 113 *Effusumque iacet sine sensu corpus honustum*, in same sense. 758 *Mens animi*: see n. to III 615. *simulacra* cet.: Cic. l. l. *quid, quod etiam ad dormientem veniunt invocatae? tota res, Vellei, nugatoria est.* 760 *quem mors pot.*: but 766 *eum mortis pot.*: so 'dare aliquem leto' and 'dare letum alicui'. 761 *Rellicta*: see n. to II 1001 *rellatum.* 763 *offecti*: see n. to II 156 *Officiuntur.* 765 *meminisse*=memoria: see n. to I 331; [and comp. Ov. her. 7 164 *praeter*

amasse.] 766 *dissentit* does not appear to occur elsewhere with this constr.: 'compounds often take the inf. or whatever constr. the simple verb does, even where such a constr. seems unnatural in the new sense which the compound has: *sentit* "feels", *dissentit* "feels by way of objection" "protests": comp. 1088 *repugnat*' J. E. M.: see I 582 and n. there. *mortis letique*, another curious tautology: comp. 274 *duplici geminoque*, 451 *Bina geminare.* *potitum*, said of meeting with an evil, is illustrated by Forc. from Plautus Accius Terence and others: Plaut. capt. 144 *gnatus tuus potitust hostium*; [Amph. 175 *Eum nunc potivit pater servitutis*: see Ussing there.] 771 *perit*: see n. to III 1042: this ingenious explanation resembles that given above 318—323 of the movements of an image in a mirror: 'there is a toy which exactly illustrates Lucr.: the same figure in different positions is painted at intervals 10 or 11 times over on a card, which is placed in a revolving cylinder. The effect is that of very rapid motion through the whole series of positions' J. E. M. 772 *Indĕ statu*: above *Unde scias*; below *Libera sponte*; *superbia spurcitia*; even three consonants *mollia strata*, *manantibus stillent*; nay four *pendentibus structas.* 775 *sensibili quovis tempore in uno* is Epicurus' ἐν αἰσθητῷ χρόνῳ: see n. to 795 where the passage is quoted and illustrated; 795 is a paraphrase of the one word *sensibili.*

777—817: this question offers many difficulties: why does a man think of whatever he wishes to think, sea or earth or sky? while others in the same place have quite other thoughts: why too in sleep are these images seen to move rhythmically? are they forsooth trained by art? or is it that in the least sensible time many times are latent, in which many images can appear? the mind again, like the eye, in order to see must often attend and exert itself, else they will pass unheeded: again the mind adds many false inferences to what is seen.—818 foll. are immediately connected with the passage ending at 776; and our present paragraph discusses the same questions as that passage sometimes in the same, sometimes in a different spirit, without the least reference to it. Lach. is therefore incontestably right in including this among those subsequent additions which Lucr. made to his poem, but did not live to incorporate fully with the rest. The poet is evidently embarrassed by the prodigious difficulties which this theory of mental apprehension involves and struggles hard to solve them: not content with the preceding paragraph, he has tried to better his argument in this one. 779 *quod* depends on *cogitare* understood from *cogitet*: i.e. cogitet id ipsum, quod cogitare libuerit. 'haec quaestio' says Lamb. 'quare quod cuique libuerit, id cogitet, cum cogitatio simulacris excitetur, pendet ex superiore cet.': these words of Lamb. Havercamp with his usual diligence prints as a continuation of the words of Cicero cited just before; and Wak. with a no less conscientious diligence remarks 'locus etiam Ciceronis nat. deor. I quem Lambinus apposuit Lucretiano est consimillimus

haec quaestio quare quod cuique libuerit id cogitet cet.' The blunder does some credit to their taste in Latin, as Cicero has seldom had a better imitator than Lamb. Cic. epist. ad fam. xv 16 thus jokes with his friend Cassius, *doceas tu me oportebit, cum salvus veneris, in meane potestate sit spectrum tuum ut, simulac mihi collibitum sit de te cogitare, illud occurrat; neque solum de te qui mihi haeres in medullis; sed si insulam Britanniam coepero cogitare, eius εἴδωλον mihi advolabit ad pectus?* and de nat. I 108 he asks *quid, quod hominum locorum urbium earum quas numquam vidimus? quid, quod simulac mihi collibitum sit, praesto est imago?*; and comp. the fuller discussion of the same question in de div. II 137. 783 *Si, si, si*=sive, sive, sive: an archaism, occurring in two old inscriptions, in Plautus more than once and in the antiquarian Fronto: see C. F. W. Mueller on *sive* p. 7: [see also 'si deus, si dea est,' carm. evoc. in Wordsworth's Fragm. and Spec. p. 285, and his note p. 410.] *denique*: see n. to I 278. 785 *sub verbo* 'est sub iussu' Lach. who refers to Lactant. inst. IV 15 22 *statimque sub verbo eius tranquillitas insecuta est*: see n. to 545 *sub murmure*. *verbo*: Livy has *senatus verbis, consulum verbis, praetoris verbis, dictatoris verbis*; Sallust *senati verbis, senatus populique Romani verbis*; Terence *verbis meis*; Plautus *verbis tuis, tuis verbis*, with the sense of *iussis*: Cic. ad Att. XVI 11, at end, *Atticae...meis verbis savium des volo.* 786 *Cum praesertim* has here precisely the force which we are taught by Madvig de fin. II 25 it often has in Cicero: 'and that too although'; he cites pro Sex. Roscio 66 *videtisne...cum praesertim deorum immortalium iussis atque oraculis id fecisse dicantur, tamen ut eos agitent furiae*: a good instance is Cic. orator 32 *nec vero, si historiam non scripsisset, nomen eius extaret, cum praesertim fuisset honoratus et nobilis*: [comp. also bell. Afr. 1 4 *cum praesertim ab incolis eius provinciae nuntiarentur adversariorum copiae, ...tamen non deterrebatur.*] The fact is that between this and the more usual sense, there is just the same difference as between *cum* 'since' and *cum* 'though'.

789 Hor. sat. I 9 24 *quis membra movere Mollius.* 790 *Mollia* I now take with *bracchia*: in ancient dancing the arms were more important than the legs: Ov. ars I 595 *si mollia bracchia, salta*; II 305 *Bracchia saltantis, vocem mirare canentis*; [III 349 *Quis dubitet quin scire velim saltare puellam, Ut moveat posito bracchia iussa mero?...Tantum mobilitas illa decoris habet*;] rem. 334 *Fac saltet, nescit siqua movere manum*; fasti III 536 *iactant faciles ad sua verba manus*; Prop. III (II) 22 5 *molli diducit candida gestu Bracchia*; Automedon 3 3, Anthol. II p. 208; βάλλει τὰς ἀπαλὰς ἀπαλῶς ὧδε καὶ ὧδε χέρας. [See also Hesych. χειρονόμος· ὀρχηστής. χωρονομεῖ· ὀργίζεται. χειρονομεῖ· ὀρχεῖται. Bentl. ad Mill. 'This dance allows no movement of the legs: the feet scarcely stir. The performers balance themselves on their haunches, inclining their heads right or left, make graceful gestures with their arms and

assume attitudes most charming and most impassioned' 30 years in a harem p. 108.] *Moll. mob.*: Ov. am. II 4 14 *in molli mobilis esse toro. in num.*: Ov. am. II 4 29 *Illa placet gestu numerosaque bracchia ducit Et tenerum molli torquet ab arte latus*; rem. 754 *numeris bracchia mota suis.* 791 *repetunt* seems = iterant: this and the preceding v. explain the *mollia membra movere*, so that *repetunt* has no reference to *bracchia*, but merely to the presenting again and again to the eyes the same *gestum* with foot moving in time to the movements of the arms and body. 792 *Scilicet* introduces of course an ironical reason. *madent*: Hor. od. III 21 9 *Socraticis madet Sermonibus* well illustrates the force of the word, because there is a play there on the literal and metaphorical sense: for other examples see Forc. 794 *An magis*, giving what he believes to be the most likely cause. 795 is as we said above a paraphrase of *sensibili*: Lucr. means that the smallest sensible time is about equal to the time in which we can utter one word, and that in that smallest time are latently contained many rational times, or times such as the mind can conceive by its reason to exist. Thus in the smallest thing perceptible to sight or touch are contained very many things which the reason alone can apprehend, viz. atoms or the parts of atoms. With Lucr. comp. the τοὺς διὰ λόγου θεωρητοὺς χρόνους and the ἐν αἰσθητῷ χρόνῳ of Epic. in Diog. x 47; and with the *Cum sentimus id et cum vox emittitur una* comp. l. l. 33 ἅμα γὰρ τῷ ῥηθῆναι 'ἄνθρωπος' εὐθὺς κατὰ πρόληψιν καὶ ὁ τύπος αὐτοῦ νοεῖται προηγουμένων τῶν αἰσθήσεων. 802 foll. the reasoning here is all very good; but neither here nor elsewhere does he explain the all-important point how the mind is first turned to any object of thought. When the mind is once roused and the will set in motion, then it may be said it attends solely or mainly to the images connected with such object: but why should one image more than any other image first strike on the mind? this he does not explain: he attributed it I presume to accident, and therefore thought it unnecessary to enlarge upon it: comp. 885 *Id quod providet* cet. and what is said there. 802 *quae contendit* i.e. cernere, as Wak. rightly explains it; it comes therefore to the same thing as, nay is somewhat more emphatic than the *se contendit* of Lamb. and Lach. *acute Cernere*: 810 *cernamus acute*: Wak. compares Hor. sat. I 3 26 *Cur in amicorum vitiis tam cernis acutum?* 804 *siquae ad*: see n. to I 841: [and comp. Plaut. curcul. 467; Bacch. 174 *quem ad epistulam* and Ussing there.] 811 *Et tamen*: see n. to I 1050. 813 the want of a subject to *semotum fuerit* seems to me, as it seemed to Lamb., very harsh; but see n. to II 1043. 815 *in rebus deditus*: see n. to III 647. 816 *adopinamur* and 817 *frustraminis* seem both to be ἅπαξ λεγόμ. With this comp. the very similar argument of 464—468.

818—822 (826): sometimes too a woman will change to a man, or the like, but in sleep we do not perceive the incongruity.—As was said

above this passage connects itself directly with that ending at 776, and continues the question of images which strike the mind in sleep.

823 (822)—857: pray do not think that the parts of the body have been given us in order to be used; in truth their use arose long after their first existence: before the eyes there was no seeing, before the tongue no speaking; on the other hand the instruments of peace and war we know to have been invented after their use was known; not so the senses and the limbs, which you must not believe to have had a final cause, as swords and shields, cups and beds had.—This passage too, as Lach. has proved to demonstration, interrupts the regular sequence of the argument, and must be a subsequent addition of the poet's: see the introductory remarks to II 165—183, where I have stated how Lach. brings the present into comparison with cognate passages in II and V. 823 *Illud* cet.: the argument is well put by Lactant. inst. III 17 with evident reference to Lucr. of whom he was a diligent student, *neque oculi facti sunt ad videndum neque aures ad audiendum neque lingua ad loquendum neque pedes ad ambulandum, quoniam prius haec nata sunt quam esset loqui audire videre ambulare. itaque non haec ad usum nata sunt, sed usus ex illis natus est.* *avessis*, like *prohibessis habessit licessit ausim iussim auxim sponsim noxim* III 444 *cohibessit*, all of the 2nd conj.: [Paul. Fest. p. 377 has *vallescit* which perhaps should be *valessit.*] In the first conj. these forms are exceedingly common, *amassis* and a hundred others. [On such forms see Westphal Verbalflexion p. 276—308; and Luebbert gramm. Stud. I.] The scholiast to Lucan IV 265 says '*avet* i. avide cupit. sic Lucretius saepe ponit'; and this is quite true. 824 *praemetuenter*, another ἅπαξ λεγόμ. 826 *prof. qu. Proc. pas.*: 877 *Nunc qui fiat uti passus proferre queamus.* 827 *fastigia* would usually mean the ends farthest from the *fundus*: Livy XXXVII 27 7 *collis est in modum metae in acutum cacumen a fundo satis lato fastigatus.* 828 *ped. fundata*: V 927 *solidis magis ossibus intus Fundatum, validis aptum per viscera nervis*: the latter words explain *plicari*, which graphically describes the mass of sinews and tendons in that part. 830 *manus...ministras*: 'Arnob. II 17' J. E. M.: Cic. de nat. deor. II 150 *quam vero aptas quamque multarum artium ministras manus natura homini dedit*, says the stoic Balbus in the middle of his strenuous defence of final causes. No doubt the zeal with which the stoics maintained this doctrine added vehemence to Lucretius' denunciations. Arist. de part. anim. IV 10 p. 687 8 in the midst of his long and brilliant statement on the side of the final cause quotes Anaxagoras' famous saying διὰ τὸ χεῖρας ἔχειν φρονιμώτατον εἶναι τῶν ζῴων ἄνθρωπον, and retorts εὔλογον δὲ διὰ τὸ φρονιμώτατον εἶναι χεῖρας λαμβάνειν, and a few lines after οὐ διὰ τὰς χεῖράς ἐστιν ὁ ἄνθρωπος φρονιμώτατος, ἀλλὰ διὰ τὸ φρονιμώτατον εἶναι τῶν ζῴων ἔχει χεῖρας: l. l. I 1 p. 640 19 he refutes Empedocles' saying τὴν ῥάχιν τοιαύτην ἔχειν, ὅτι στρα-

φέντος καταχθῆναι συνέβη. 831 *ad vitam quae foret usus*: v 844 *nec sumere quod foret usus. quae* I take to be the accus.: comp. Plaut. Pseud. 385 *Ad eam rem usust hominem astutum doctum scitum et callidum*; [and Amph. 501, where see Ussing:] or *facere* may be supplied: for Lucr. 1268 *Nec molles opu' sunt motus*, like other writers, uses the plur. verb with a nom. plur. 832 *inter quaec. pretantur*: see n. to I 452. 836 *videre*, 837 *orare*, 843 *conferre*, 844 *lacerare, foedare*, 848 *mandare*, 850 *sedare* all = nom. subst.: see n. to I 331. 841 *foret usus*: *usus* has here of course its ordinary sense: *foret usus* above with the meaning of *foret opus* seems to have suggested to him the use of the words here in another sense: comp. I 875 *latitandi...latitare*, and n. there. 843 *At contra* cet.: Arist. de part. anim. I 5 and IV 10 goes over much the same ground as Lucr. here, and comes to exactly opposite conclusions: he uses the tools made by a man as a proof that the tools made by nature had the same end in view, the hand being ὡσπερεὶ ὄργανον πρὸ ὀργάνων: the body and all its parts are made for the functions they perform, as the saw is made for the sake of sawing: the sawing is not done for the sake of the saw. *conferre manu cert. pug.*: Lach. compares Aen. VII 604 *Getis inferre manu lacrimabile bellum* and X 146 *inter sese duri certamina belli Contulerant*: comp. too Livy XXVI 48 11 *prope esse ut manus inter se conferant.* 847 *daret obiec. parmai* = obiceret parmam, *daret*, as so often, being = faceret: see n. to 41: Aen. II 443 *clipeosque ad tela sinistris Protecti obiciunt.* 852 *ex usu vitaque* seems to be the same as *ex usu vitae.* 856 *procul est ut credere possis* seems on the analogy of *prope est ut*; but I know no parallel: *haud* or *non procul esse quin* is the usual expression.

858—876: the body requires food, because it loses many particles constantly, and thus an aching void is produced, which has to be filled up and the pain allayed; liquid too is taken into the body and quenches the particles of heat in the stomach; thus both thirst and hunger are appeased.—These vss. too, as Lach. p. 259 shews, are well adapted to the general subject of IV, but here interrupt the connexion of the argument and are manifestly an after-thought of the poet's. 860 *fluere* cet.: II 1128 *Nam certe fluere atque recedere corpora rebus Multa manus dandum est*: this with what precedes and follows is what the poet refers to in *docui*, together with perhaps IV 218—229: IV 695 *Nam penitus fluere atque recedere rebus odores.* 865 *igitur* in the apodosis: see n. to I 419. 866 *Subruitur*, 867 *suffulciat* belong to the same metaphor, the shoring up a falling structure: Hor. sat. II 3 153 *ni cibus atque Ingens accedit stomacho fultura ruenti*: comp. II 1140 *fulcire cibus* and n. there: Lucr. speaking of the causes of sleep says IV 942 *Fit quasi paulatim nobis per membra ruina*, and then 950 *Et quoniam non est quasi quod suffulciat artus.* 868 *interdatus*: 227 *interdatur*: see n. to 716. *patentem*, 869 *opturet* are also the same metaphor. 869 *amorem edendi*,

the ἐδητύος ἔρον of Homer which Virgil too translates by *amor edendi*. 875 *tibi*: see n. to I 797.

877—906: this is how we walk: idols of walking strike the mind, and rouse the will; next the soul throughout the body is stirred by the mind, and then the body by the soul; the body too is then rarefied, and the outer air at once enters into all the opened pores; so that the body is pushed on as a ship by the wind; the mass of the body being moved and steered by a few small particles, just as a big ship by the rare wind and by the hand of the pilot: thus too a machine will easily lift a heavy weight. [878 *datum sit...movere*: Pliny epist. III 1 1 *si modo senescere datum est*: 'Kuehnast synt. Liv. 252; Hor. epist. I 1 32' Mayor: *dare* with infin. '(Cic. u. Caes. nicht) Liv. zweimal, sonst *ut*' Kuehnast.] 882 *Accidere* in its literal sense has in Lucr. four constructions, II 1024 *ad auris*, IV 215 *in oras*, V 608 *segetes stipulamque Acc.*, here *animo* and V 97 *res menti Acc.* *ante* i.e. 722 foll. 884 *quam mens* cet. as shewn III 245 foll.: *quam ante*: see n. to III 973 *quam nascimur ante*. 885 *quod* is the conjunction: Lamb. Creech and others have misunderstood and corrupted the passage: *id* and *illius rei* refer of course to the same thing, viz. *quid velit*; and *quod* has a peculiar but not unusual force, denoting rather the effect than the cause: indeed 'providet id, quia eius imago constat' would express exactly the meaning of Lucr. To translate 'because' would pervert the reasoning; for 881 *animo nostro primum* cet. the images first of all strike the mind: comp. my note and illustrations to 724 foll. and 802 foll. and Cic. de fin. I 21 *imagines quae* εἴδωλα *nominant quorum incursione non solum videamus, sed etiam cogitemus*, and Plut. de plac. phil. IV 8 of Leucippus and Democritus μηδενὶ γὰρ ἐπιβάλλειν μηδετέραν (νόησιν) χωρὶς τοῦ προσπίπτοντος εἰδώλου. *Quod* cet. therefore means 'the reason why he predetermines that thing is this: an image etc.': the phrase is elliptical, 'quod providet id, [hoc fit quod] illius rei est imago'; and the full expression is seen in Catull. 68 33 *Nam quod scriptorum non magna est copia apud me, Hoc fit quod Romae vivimus*: comp. 10 28 *Istud quod modo dixeram me habere, Fugit me ratio*, i.e. [hoc factum est quod] fugit m. r.: Cic. ad Att. XII 18 a 2 *nam quod non advocavi ad obsignandum, primum mihi non venit in mentem, deinde ea re non venit quia* cet. i.e. [hoc factum est quod] primum cet.: Ov. trist. III 1 13 *Quod neque sum cedro flavus nec pumice levis, Erubui domino cultior esse meo: Littera suffusas quod habet maculosa lituras, Laesit opus lacrimis ipse poeta suum*; amor. I 13 33 *quod erat tibi filius ater, Materni fuerat pectoris ille color*; III 5 39 *Pectora quod rostro cornix fodiebat acuto, Ingenium dominae lena movebat anus: Quod cunctata diu taurum sua vacca reliquit, Frigidus in viduo destituere toro*; Sen. Oct. 752 *Iugulo quod ensem condidit princeps tuus, Bella haud movebit*, cet.; [Phaedr II. 4 3 *Nam fodere terram quod vides cotidie Aprum insidiosum, quercum vult evertere*; Mart. II 111 *Quod fronte Selium nubila vides*,

Rufe, Quod ambulator porticum terit seram, Lugubre quiddam quod tacet piger vultus, Quod paene terram nasus indecens tangit, Quod dextra pectus pulsat et comam vellit: Non ille amici fata luget cet.; VIII 21 3 *placidi numquid te pigra Bootae Plaustra vehunt lento quod nimis axe venis?*; 82 2 *Nos quoque quod domino carmina parva damus, Posse deum rebus pariter musisque vacare Scimus, et haec etiam serta placere tibi.*] So Aen. II 180 *Et nunc quod patrias vento petiere Mycenas, Arma deosque parant*, i.e. [hoc fit quod] arma cet.: Wagner's explanation and the instances in Heinsius' note to which he refers are quite irrelevant. The old hexameter *sors*, inscr. Lat. I 1453, *Quod fugis quod iactas tibei quod datur spernere noli*, which Ritschl and Mommsen alter in various ways, seems midway between the full and elliptical phrases: 'Quod fugis, quod iactas, [hoc fit] quod tibi datur: spernere noli': an illustration of *semper aves quod abest, praesentia temnis.* *rei* monosyll. as III 918. 887 *corpore toto* cet.: see n. to II 271. 889 *coni. tenetur*, so fully explained in III; as 136 *animum atque animam dico coniuncta teneri Inter se atque unam naturam conficere ex se.* 896 *rebus utr. duabus* seem to be the inward movement of the body by the impulse of the *animus* and *anima*, and the propulsion from without by the entrance of the outer air. *velis ventoque* then do not correspond to this two-fold cause of motion; as they would represent merely the effect of the outer air on the body. Gassendi therefore, opera II p. 506 b, had reason for proposing *remis ventoque*; as the *remis* would answer well enough to the *anima* and its effect on the body. 'But may not *corpus* and *aer* correspond to *velis ventoque*, expressing simply the secondary cause of the motion of the body, the air acting on the frame as the wind on the sails of a ship' F. H. Peters. This explanation I am now disposed to adopt: the metaphor then will only apply to 892 *Praeterea* cet. not to what precedes; and *utrimque* is on the one hand the rarefying of the body; on the other the entering in of the air; and all this seems to be confirmed by VI 1031 *Hic* i.e. aer. . *per crebra foramina ferri Parvas ad partis subtiliter insinuatus Trudit et inpellit, quasi navem velaque ventus*: 896 I have left unaltered, as I have doubts on the whole passage; and cannot decide between the *Corporis ut navis* of Lach., the *Aeque id ut ac n.* of Bern., and other changes proposed. 899 *Tantula tantum corpus corpuscula*: V 593 *Tantulus ille queat tantum sol mittere lumen*; Cicero and Caesar use *tantulus* and *tantus* together in the same way: but this love of antithesis shews itself in a hundred ways in Lucr.; 901 *suptili corpore tenuis, magnam magno molimine*; 905 *pondere magno, levi nisu.* 902 *molimine* expresses the momentum of the huge ship in motion: Livy II 56 4 *res suo ipsa molimine gravis.* It may refer however to the great force of the impelling wind; as Ov. met. XII 356 *solidoque revellere trunco Annosam quercum magno molimine temptat.* 904 *contorquet* of steering, as 900 *Contorquere*; Aen. III 562 *Contorsit laevas proram Palinurus adundas.*

905 *trocleas* were certain arrangements of blocks of pulleys, described by Cato and Vitruvius. *tympana* seem to have been wheels which revolved by men treading on them, and raised to their places columns and other heavy weights; both the *trocleas* and *tympana* being portions of the same *machina*. *pondere magno*: abl. of quality depending on *Multa*: it gains force by its position: comp. v 556 *quam magno pondere nobis Sustineat corpus tenuissima vis animai*, and vi 548 549: Aen. ix 512 *Saxa quoque infesto volvebant pondere*; x 381 *magno vellit dum pondere saxum*.

907—928: sleep takes place, when the soul is scattered in the body, and part of it has gone out, part withdrawn into the depths of the body: only part however can go forth; else death would ensue; enough must stay behind to let sense be rekindled, as fire is rekindled when buried under the ashes. 907 *somnus* cet.: Macrob. sat. vi 1 44 compares with this Aen. i 691 *placidam per membra quietem Inrigat*, and Furius in primo *mitemque rigat per pectora somnum*: comp. too Aen. iii 511 *fessos sopor inrigat artus*; Pers. v 56 *inriguo somno*; and Conington to Aen. i 691. 909—911 = 180—182. 912 *da tenuis* cet.: i 50 *vacuas auris animumque sagacem . . adhibe*. 916 *somnus fit*: Epic. in Diog. x 66 ὕπνον τε γίνεσθαι τῶν τῆς ψυχῆς μερῶν τῶν παρ' ὅλην τὴν σύγκρισιν παρεσπαρμένων ἐγκατεχομένων ἢ διαφορουμένων, but the next words are clearly corrupt. 916—918 are the same in meaning as 944 foll. and 959—961 *Fit ratione eadem coniectus* cet. 924 *corpus* cet.: iii 401 *Et gelidos artus in leti frigore linquit*. 926 *cinere multa*: Marullus says in marg. cod. Victor. 'sic Catullus *Troia virum et virtutum omnium acerba cinis*' and at bottom of the page '*cinis* feminino Catullus Virg. in ceter. masculino': he is in error as to Virgil: Nonius says it is fem. in Caesar and Calvus; and Charisius i, p. 101 Keil, quotes from the latter *fulva cinis* and *ipsa cinis*. 927 *reconflari* seems not to occur elsewhere: the metaphor is of course from kindling fire.

929—961: sleep is thus produced: the body is constantly beaten upon by the outer air as well as by that which is inhaled by breathing; thus assailed within and without the body gives way, and the soul is disordered, part of it as has been said leaving the body, part withdrawing into its recesses, while the rest cannot perform its functions: thus the body too becomes languid and powerless: again sleep follows eating, because the food in passing into the system acts on it as the air does; and the disorder of the soul is then greater than ever. 934 *eius* i.e. aeris: *aeriis auris* being the same as *aeris auris*, which he often uses: see n. to. i 352, and comp. ii 174 *genus humanum quorum*, and n. there: so Cassius ap. Cic. epist. ad fam. xv 19 1 *propter spectra Catiana, pro quo* i.e. Catio; Aen. i 671 *vereor quo se Iunonia vertant Hospitia: haud tanto cessabit* i.e. Iuno; Plaut. rud. 598 *Ad hirundininum nidum* cet. followed by *Neque eas* i.e. hirundines: miles 186 the reading seems to be *ut ne quoquam de ingenio degrediatur muliebri Earumque artem* cet.;

though Ritschl says 'posterioris esse interpretamentum priorem, apparet, in quo olim scriptum fuit *mulierum*'. [Comp. too Pliny XXXV 5 *epicurios voltus per cubicula gestant ac circumferunt secum. natali eius sacrificant*: and see Mayor's n. to Juv. XIV 241.] 936 *Aut etiam*: see n. to I 1012 *Aut etiam*. 939 *utrimque secus*: 'Lucil. sat. lib. XXII *Zopyrion labeas caedit utrimque secus*' Nonius p. 210: the expression is not uncommon in late Latin, as in Apuleius: in Cato apparently it is followed by an accus., *secus* being = secundum. comp. the use of *versus* and *versum* with *undique*, *sursum* and the like; and *extrinsecus intrinsecus altrinsecus*. 940 941 comp. above 894 895. 944 *fit uti pars inde* = inde fit uti: see n. to II 1004. 944 foll. comp. above 916—918 and below 959—961. 947 *mutua fungi* occurred III 801, where see n. and references. 952 *cubanti* cet. i.e. quamvis cubanti, tamen saepe cet.: comp. 987 *cum membra iacebunt In somnis sudare tamen*; 991 *in molli saepe quiete Iactant crura tamen*; [Prop. III (II) last elegy 50 *Trux tamen a nobis ante domandus eris*:] Livy XXIX 17 13 *unam, profundam quidem, voraginem tamen patientia nostra expleremus*: see also III 553 and n. there. 953 *summittuntur*: I 92 *terram genibus summissa petebat*: where see note. 959—961 comp. above 916 foll. and 894 foll. where all the same symptoms are mentioned; but here, as the sleep is heavier than usual, each symptom is aggravated: *altior*, *largior*, *divisior*. 961 *divisior*, *distractior*: these comparatives seem unexampled; Paterculus has *distractissimus*; but the superl. of participles is not so rare as the compar.: V 394 *superantior*, III 397 and VI 238 *dominantior* seem also confined to Lucr.; but Neue, Formenlehre p. 86 foll. gives pages of examples of comparatives and superlatives of participles past and present. *in text*, for 957 we have *Quem satur aut lassus capias*.

962—1036: the dreams of men generally turn on what has chiefly occupied their waking thoughts, whether business or pleasure: it is the same with brutes too: again the passions which are strongest in men often display themselves in dreams, as well as other mental states. 962 foll. comp. Accius fab. praetext. 29 *Rex, quae in vita usurpant homines, cogitant curant vident, Quaeque agunt vigilantes agitantque, ea sicui in somno accidunt, Minus mirum est*: Marullus 'hinc Claudianus maiorem partem sui exordii sumpsit': he refers to the pref. paneg. de sexto consul. Honor. 962 *quo* depends on *devinctus*, as shewn by the imitation of Fronto quoted by Lach. *ut, quo studio quisque devinctus esset, aut histrionem in somnis fautor spectaret aut* cet.: Cic. epist. ad fam. III 13 2 *in iis studiis, quibus uterque nostrum devinctus est*. 964 *Atque in ea*, following relative clauses: see n. to I 718. 966 *Causidici* cet.: Petronius frag. XXX evidently had this part of Lucr. in his mind: *Somnia quae mentes ludunt* cet. and *Qui causas orare solent, legesque forumque Et pavidi cernunt* cet.: perhaps too he was thinking of

Lucr. when he wrote sat. 104 hinc scies *inquit Eumolpus* Epicurum esse hominem divinum qui eiusmodi ludibria facetissima ratione condemnat. *componere*: Cic. de leg. I 14 *an ut stipulationum et iudiciorum formulas componam*; Juv. VI 244 *Componunt ipsae per se formantque libellos.* *leges*: abundant examples of *leges* of buying selling letting may be seen in Cato de re rust. 145 foll. *oleam faciundam hac lege oportet locare, oleam pendentem hac lege venire oportet*; and so of *vinum pendens, vinum in doliis, pabulum hibernum, fructum ovium, qua lege venire oportet*: Plaut. capt. 177 *Quasi fundum vendam, meis me addicam legibus.* 967 *pr. obire*: Aen. VI 167 *pugnas obibat*; Livy IV 7 2 *obire tot simul bella.* 968 Lamb. finds *degere bellum* inadmissible; Lach. thinks that it is unexampled, but may perhaps be supported by *agere* and *peragere bellum.* 969 *agere hoc*: see n. to I 41. 975 *sens. us.*: see I 301 *Usurpare oculis* and n. there. 978—981 form two consecutive rhyming couplets: Cic. de cons. suo, in de div. I 20, *monebant, ferebant, iubebant, vereri, teneri* end 5 consecutive vss.; and just below *morata, locata.* 980 comp. above 788 *in numerum procedere cum simulacra Cernimus in somnis et mollia membra movere* cet. 984 *refert st. at. vol.*: Plaut. Persa 593 *Quae ad rem referunt*; Livy IX 9 7 *ne illud quidem.. refert*: but with pronouns it is more common: lexicons cite from Pliny *longitudo refert, non crassitudo; ratio refert*: Cic. ad Att. III 19 1 *non quo mea interesset loci natura.* 988 and 992 *tamen*: see n. to 952. 993 *redducunt*: Petron. sat. 98 *reducto timidissime spiritu.* 997 *redeant*: *donec* elsewhere in Lucr. takes always an indic.: see n. to I 222. 998 and 1007 *At*: see n. to 414. *consueta* i.e. which has lived with the family and been domesticated; V 1334 *domi domitos*: Lach. compares Plaut. asin. 221 *amatores aves. Bene salutando consuescunt, compellando blanditer*: comp. also Ov. met. XI 89 *Hunc adsueta cohors Satyri Bacchaeque frequentant.* *catulorum blanda propago*=catuli blandi: see n. to III 741 *leonum Seminium*, and below to 1232; and comp. Virgil's *Romana propago*, and Nepos Attic. 18 2 *clarorum virorum propagines.* 1005 *seminiorum*: see n. to III 741. *quaeque*: the plural followed by the gen. is rare: Hor. sat. I 4 106 *vitiorum quaeque.* 1009 *proelia pugnas*: see n. to II 118. 1010 i.e. persectantesque volantes visae sunt edere, and other pursuing birds: Nonius p. 192 is wrong in saying *accipitres* here is fem. though he formerly misled me: see n. to III 136: II 1083 *volantum*, as Aen. VI 728: for position of *que* see n. to II 1050. 1011 *magnis motibus*: it is because they are under the stimulus of some great emotion, that in sleep they cannot get rid of it. 1014 *quasi si*, a rare union: Forc. quotes an instance from Plaut. Cas.; and *quasei sei* occurs in the inscr. Lat. I, 6 or 7 times, being a regular legal phrase: comp. *nisi si.* [See also Plaut. Amph. 1094 *quasi si...veniam*: Ussing here quotes other instances from Plautus: see too Langen Beitr. zu Plautus p. 320. 1019 *Indicio..facti*: for the dat. see n. to

vi 771; and for the gen. Roby gramm. pt. ii. p. xxx.] 1024 Wak. compares Aen. ix 680 *Sive Padi ripis, Athesim seu propter amoenum.* 1026 *Puri* for *pueri* is surely an impossible contraction in hexameters: why should not Lucr. have written *Saepe lacum pueri*, as two lines above he has written *Flumen item sitiens*: the *Tum quibus* of 1030 seems to me to have no more reference to *Puri* than to this *sitiens*; nay less, for comp. 1097 *Ut bibere in somnis sitiens quom quaerit* cet., *Sic in amore Venus simulacris* cet. which refers in fact to our passage: the thirsty man and the lover alike owing to their vehement craving see the *simulacra* of what they desire. My difficulty is that *puri* ought rather to be *mundi*, not clean but of cleanly habits. For the sense comp. Hor. sat. i 3 90 *Comminxit lectum potus...minus hoc iucundus amicus Sit mihi.* Yet I see on all hands *Puri* is taken for *pueri*, and I may be in error. *lacum*: Lach. cites Juvenal vi 603 *Ad spurcos lacus.* *dolia*: Macrob. sat. iii 16 15 quotes from C. Titius 'vir aetatis Lucilianae' *demeiunt, nulla est in angiporto amphora quam non impleant.* [*curta*: Prop. v (iv) 5 75 *curto vetus amphora collo*; Mart. iii 82 3 *Curtaque Ledae sobrius bibat testa.*] 1028 imitated by Seren. Samon. 77 *ex asino saccatus corporis umor*; [and by Arnob. ii 37 *saccati* cet.] 1029 *Babylonica*: 1123 *Babylonica fiunt*: Pliny viii 196 *colores diversos picturae intexere Babylon maxime celebravit et nomen imposuit.* 1032 *quoque*: Lachmann's *quodam* is a violent change and quite uncalled for: he says 'ex uno quodam certo corpore; v. 1048 *Idque petit corpus* cet.': certainly not; there it is a waking man in presence of the object loved: here he speaks of one with the germs of love in him meeting in his sleep with *simulacra* proceeding from any chance person, just as the *sitiens* has *simulacra* from any chance water whatever: *quoque* is indefinite exactly as 797 *fit uti quovis in tempore quaeque Praesto sint simulacra*; 155 *quamvis subito quovis in tempore quamque Rem contra speculum ponas*; v 1152 *Circumretit enim vis atque iniuria quemque.* 1035 *transactis*: Theocr. ii 143 Ἐπράχθη τὰ μέγιστα.

1037—1057: 1037 *ante*, i.e. 1030 foll. 1042 *dec. corpore toto*: Epic. in Diog. x 66 τό τε σπέρμα ἀφ' ὅλων τῶν σωμάτων φέρεσθαι, as Democritus also taught according to Plut. de plac. phil. v 3: comp. too Hippocr. de genit. 8 ἡ γονὴ ἐξέρχεται καὶ τῆς γυναικὸς καὶ τοῦ ἀνδρὸς ἀπὸ παντὸς τοῦ σώματος. 1044 partly recurs vi 1207. *ipsas*: 651 *Omnibus in membris et in ore ipsoque palato.* 1046 'Licin. ap. Non. p. 260 *per forum se in capitolium contendit*' J. E. M. 1048 *Id* is accus., *corpus* nomin. 1049—1056 there is an elaborate irony in these vss.: the first three make a general statement, of which the last five are a special application. 1049 *omnes plerumque*, like *plerique omnes*: Caes. de bell. Gall. v 57 3 *equites plerumque omnes*: all fall towards their wound, whether in the fields of Mars or Venus or else-

where; then 1055 is an ironical application of this. *in vulnus* seems intentionally ambiguous, meaning both the wound itself and that which occasions the wound: Aen. x 488 *Corruit in vulnus*; and comp. Lucan VII 603 *tunc mille in vulnera laetus Labitur* with 619 *letiferum per cuius viscera vulnus Exierit* and 625 *Quis cruor emissus perruperit aera venis Inque hostis cadat arma sui*: both Virgil and Lucan may have been thinking of Lucr.: Livy I 58 11 *cultrum .. in corde defigit prolapsaque in vulnus moribunda cecidit*; II 46 4 *telo extracto praeceps Fabius in vulnus abiit.* This and the two next vss. are obelised by Lamb. and others, manifestly because they have not caught the poet's satirical irony, which pervades all this part of the poem. *sanguīs*: see notes 1 to I 853: it is found in Virgil, Tibullus, Seneca, Val. Flaccus and the Aetna; and more than once in Ovid, Lucan and Silius. *icimur*: III 160 *icit.* 1051 *hostem* cet.: comp. Lucan l. l. *ruber umor* is said apparently with the same ambiguous irony as 1036 *cruentent.* 1052 *telis*, *ictus*, 1053 *iaculatur*, 1054 *iactans*, 1055 *feritur* are all used to keep up the play of thought about wounds and enemies. 1054 comp. Cic. Arat. 110 *toto spirans de corpore flammam.*

1058—1072: when tormented by love seek distraction; else your passion will only be increased by the absence of the object loved. 1058 *Haec* refers to *voluptatem*, *hinc* to *cupido* of the preceding v.; and there is the usual contrast between *Venus* and *amor* or *cupido*, the gratification of the passion and the passion itself: 'haec voluptas nobis est Venus; ex hac autem cupidine est nomen Latinum amoris, hoc est Cupido': with *Haec Venus* comp. 1084 1085 and especially 1073 *Nec Veneris fructu caret is qui vitat amorem.* *nomen am.*: Ov. ars II 16 *Nunc Erato: nam tu nomen amoris habes.* 1059 *Hinc* also refers to *muta cupido*; so that this verse is a paraphrase of *voluptatem praesagit.* *illaec* recurs 1083, where it is neut. plur.; *illic illaec illunc illanc* occur in Plautus. 1060 *Stillavit gutta*: Bentl. compares Eur. Hipp. 527 Ἔρως, Ἔρως .. Ὅστις στάζεις πόθον εἰσάγων γλυκεῖαν ψυχαῖς χάριν κ.τ.λ. [So Plaut. Epid. 854 *a, guttula Pectus ardens mi adspersisti.*] *frigida*: Juv. I 166 *cui frigida mens est Criminibus.* 1061 *quod*: Plaut. trin. 242 *Nam qui amat, quod amat, cum extemplo eius saviis perculsus est*; [curcul. 170 *Ipsus se excruciat qui homo quod amat videt nec potitur dum licet.*] *quod ames* must not be tampered with: it=quod amamus; and is another instance of that perpetual use of the potential with the 2nd pers. sing.: Cic. ad Att. XV 4 a 1 *nisi forte, quae non ames, omnia videntur insulse fieri*; [Lael. 100 *amare autem nihil est aliud nisi eum ipsum diligere, quem ames*: see Seyffert (Mueller) p. 318;] Ov. ars I 741 *non tutum est, quod ames, laudare*; amor. III 14 7 *quae nocte latent, in luce fateri, Et quae clam facias, facta referre palam*: Publil. Syrus *Cum ames, non sapias; aut cum sapias, non ames: Quod timeas citius quam quod speres evenit: Quod nescias cui serves, stultum est*

parcere: Quod fugere credas: just below, 1070, in one sentence *conturbes—cures—possis.* 1062 *obv. ad*: the dat. is the usual constr.: 978 *obversantur Ante oculos.* 1064 *Absterrere sibi*: 1233 *satum genitalem numina cuiquam Absterrent*, with same sense and constr.; v 846 *natura absterruit auctum*: lit. to scare away, hence adimere. 1066 *semel* cet. i.e. semel conversum in unum amore eius, with reference to 1064 *alio convertere mentem*: comp. too 1072 *alio possis animi traducere motus. conversum* agrees of course with the subject of the sentence. 1068 *virescit*: 1138 *virescit ut ignis.* *alendo*: see n. to I 312 *habendo*; and Virg. geor. III 454 *alitur vitium vivitque tegendo.* 1069 *gravescit*: III 1022 *gravescant*, VI 337 *gravescit*; for the *ingravesco* of prose. 1070 *Si non prima* cet.: Cic. Tusc. IV 75 *etiam novo quidam amore veterem amorem tamquam clavo clavum eiciendum putant.* 1071 *volgivaga*: v 932 *Volgivago vitam tractabant more ferarum*: the word seems not to occur elsewhere; and to be intended to express Ἀφροδίτη πάνδημος. *vagus* implies *volgivaga Venus*: Sen. Herc. Oet. 364 *quot nuptas prius, Quot virgines dilexit. erravit vagus.*

1073—1120: moderation in this as in other passions affords the truest pleasure: indulgence only increases the force of the passion which food instead of appeasing only makes more ravenous. 1076 *miseris*, 1159 *miseri*, 1179 *miser* express the Greek δυσέρως, as often in Latin: Ov. rem. 658 *Aut amat aut aegre desinet esse miser.* 1080 *dentes inl.*: Hor. sat. II 1 77 *fragili quaerens inlidere dentem, Offendet solido.* 1081 *Osc. adfl.* i.e. adfligunt osculum osculo; for *osculum* has its literal sense of 'mouth': Ov. met. I 499 *videt oscula, quae non Est vidisse satis*: [Mart. XI 91 7 *Ipsaque crudeles ederunt oscula morbi.*] It is curious that here too A and B exemplify the usual confusion between *adfligo* and *adfigo.* 1083 *rabies* gen.: so Enn. ann. 401 *dies*, which form Gellius IX 14 6 on the authority of Caesellius and many old mss. assigns to Cic. pro Sestio 28, and after those 'qui scripserunt idiographum librum Vergilii se inspexisse' to Virg. geor. I 208: Gellius also defends and illustrates the forms *dii fami pernicii luxurii acii.* 1088 *totum*: see n. to I 377. *repugnat* takes an infin. 1269 *prohibet se concipere atque repugnat*; Ovid her. 17 137 *amare repugno Illum*; but there the word means to strive not to do a thing; here it means *contradicens affirmat*: see n. to 766, and I 582. 1091 *mem. ads. intus*: VI 1169 *Flagrabat stomacho flamma ut fornacibus intus*; 202 *rotantque cavis flammam fornacibus intus*; 278 *acuit fulmen fornacibus intus*; 798 *animam labefactant sedibus intus*; Livy XXV 11 15 *sinu exiguo intus inclusae*; Aen. VII 192 *Tali intus templo* cet.; culex 76 *vallibus intus.* 1095 *Nil fruendum*: above, 1078, *quid fruantur*; see n. to III 956. 1096 *quae* cet.: sorry as it is, it is often snatched away before it can be enjoyed: *spes* refers to 1086 1087; comp. with them 1097 1098. 1100 *torrenti*: the overflowing stream increases the force of the contrast.

1102 *spectando*: see n. to I 312 *habendo*. 1106 *praesagit gaudia*: above 1057 *voluptatem praesagit*. 1107 is *in eost* personal here, *Venus est in eo ut*; or impersonal, i.e. res in eo est, ut Venus? comp. Livy II 17 5 *et cum...iam in eo esset ut in muros evaderet miles*, where there seems to be the same ambiguity: so Nepos I 7 *cum iam in eo esset ut oppido potiretur*; IV 5 *cum iam in eo esset ut comprehenderetur*; Servius to Aen. III 286 certainly makes the verb personal, *cum in eo essent ut iam civitatis potirentur*, imitated perhaps from Nepos; and so Soph. Elect. 21 ὡς ἐνταῦθ' ἐμέν, Ἵν' οὐκέτ' ὀκνεῖν καιρός, if the reading is right: but there is no ambiguity in Livy VIII 27 3 *iamque in eo rem fore ut*; XXVIII 22 8; XXX 19 3; XXXIII 41 9. 1112 *facere* i.e. hoc facere; as often in Latin: 1153 *Nam faciunt homines*; 1195 *Nam facit ex animo saepe*: Ter. ad. 969 *Denique hic volt fieri...vin tu hoc fieri*; Phorm. 121; Plaut. Pseud. 533 *si non faxis* (mss. *id faxis* Ritschl); Cic. ad Att. XVI 15 1; 16 e 15; de leg. III 33; Pliny epist. IV 26 1; V 1 4; VI 23 1; IX 18 2; Livy XLII 37 6; Juv. VII 14; [Sen. rhet. suas. VI 12 *faciet, rogabit*; controv. I 1 3 *faciamque*; ib. 19 *non feci*; 7 14 *sciebam enim piratas non facturos*.] 1118 *Cum* cet.: i.e. cum quaerunt quid cupiant ipsi sibi cont.: Sen. epist. 31 5 *eligas, quid contingere tibi velis, quid optes*. 1120 comp. Ov. her. 4 20 *Urimur et caecum pectora vulnus habet*.

1121—1140: lovers ruin their health and fortune; and even then their happiness is often poisoned by jealousy. 1123 *Labitur res*: Plaut. trin. 243, in the midst of a scene describing a lover's ruin, *Ilico res foras labitur liquitur*. *Babylonica*: see n. to 1029. *Babylonica fiunt* i.e. *res fit* or *vertitur in Babylonica*: 1129 *bene parta patrum fiunt anademata*. 1125 *Huic* i.e. amicae: certainly the absence of any word to shew the change of subject would be harsh; as before and after the lover, not the mistress, is the subject. *lenta...Sicyonia*: ciris 169 *Cognita non teneris pedibus Sicyonia servans*; Cicero speaks of them as not suited for men. *pulchra*: Lucil. III 53 Muell. *Et pedibus laeva Sicyonia demit honesta*. 1126 *cum luce*: see n. to I 755 and 287: Cicero in his Aratea has *Vergilias tenui cum luce*; *valida cum luce refulgens*; *larga cum luce Bootes*; *claris cum lucibus Orion*; and *cum lumine* again and again. *zmaragdi*: the *z* also in II 805; Ζμύρνα is found in Greek inscriptions, and ζμερδαλέα in the Herculanean ms. of Philodemus περὶ εὐσεβείας just published; Eustathius shews that this use of ζ before μ was very general; in Orell. inscr. 2510 *zmaragdi* occurs seven times; and the best mss. of Livy give *Zmyrna, Zmyrnaei*; of Ovid *zmaragdos*; of Seneca *zmaragdos* and *zminthea*: inscr. Rhen. 1124 the name *Zmaragdus*. 1127 *Auro incl.*: to be used probably as a *fibula* or brooch: *includ.* appears to be the technical term: Aen. XII 210 *artificis manus aere decoro Inclusit*; X 136. *thalassina*: some shade of purple or ἁλιπόρφυρος; Plaut. miles 1179 *Palliolum habeas ferrugineum, nam is colos thalassicust*. 1129 *bene parta patrum*: Ter. Phorm. 788 *mei patris bene parta*. *anad.*

mitrae: Aen. IX 616 *habent redimicula mitrae* and Antipater Sid. anthol. II p. 31 Ἄνδεμα δ' αὖ μίτρας [and Eur. Hec. 923 ἐγὼ δὲ πλόκαμον ἀναδέτοις μίτραισιν ἐρρυθμιζόμαν] might make us join the two words; but they are more emphatic when separate; and Paulus in the digest has *mitrae et anademata*. The *anadema* then will be an ornamental band for the head: χρυσέας κόμης Ἀνάδημα, says Eur. Hipp. 81; the *mitra* a scarf covering the head and much of the face; though it may be the other *mitra* or *zona*: μαλακαί, μαστῶν ἐνδύματα, μίτραι, says Hedylus anthol. I p. 483: Lucil. II 26 Muell. *Chirodyti aurati, ricae, thoracia, mitrae.*
1130 *Alidensia* of mss. I now retain, agreeing so far with Wak. that it may refer to the Carian Alinda; for I see that in Pliny V 109 Detlefsen with the mss. gives *Alidienses* (?*Alidenses*) in the list of the Carian peoples: with *Alinda Alidensis* I would compare *Vicentia Vicetini* (Οὐικετία). [Perhaps with the quantity *Alid.* one might compare Plaut. Menaech. 235 *Illurios*=*Illyrios*. It appears that *Alidiensis*=*Alidensis*, as Pliny XIV 16 has *Veroniensium*; 67 *Veroniensi*; XV 48 and XXXVI 48 *Catulli Veroniensis*: so Lucil. lib. inc. 103 mss. give *piscinienses* for *Piscinensis*.] I had thought of *Haliensia*, as Ἁλιεῖς was a seaport of some consequence in Hermionis, mentioned by Herod. Thucyd. and Xen. and might have been an emporium of the Laconian purple. Jessen quaest. Lucr. p. 10 thinks that *Alid.* may mean 'Elean,' as Pliny calls Elean byssus 'deliciae mulierum'; but we cannot get over the *ā*. *Cia* i.e. Κεῖα: Lach. proves from Pliny IV 62 that Varro mistook Aristotle's Cos for Ceos; Lucr. and Pliny followed him in his error; Lucr. therefore uses *Cia* or *Cea* for *Coa*. *vertunt* neut.: see n. to III 502 *reflexit*; and comp. V 1422 *neque in fructum convertere quisse*. 1131 *veste*, the coverings of the furniture and hangings of the room. *ludi*, 'absurde in apparatu convivii' says Lach.: but they may well come in after the feast with the *Pocula crebra*, etc.: C. Titius 'vir aetatis Lucilianae,' in Macrob. sat. III 16 15 says of prodigals *ludunt alea studiose, delibuti unguentis, scortis stipati*; and all these preparations are here made for the *scorta*: copa 37 *Pone merum et talos*; Plaut. curc. 354 *Postquam cenati atque appoti, talos poscit sibi in manum, Provocat me in aleam ut ego ludam. pono pallium, Ille suum anulum opposivit*; most. 308 *Age accumbe igitur ...appone hic mensulam: Vide, tali ubi sint: vin unguenta* cet.; Hor. epist. II 2 56 *venerem convivia ludum*; Juv. XI 176 *alea turpis*: 179 *Nostra dabunt alios hodie convivia ludos*; Iul. Capitol. Verus 5 *post convivium lusum est tesseris*; [Justin. XII 3 *conviviumque iuxta regiam magnificentiam ludis exornat*;] Cic. pro Caelio 39 joins *non aequalium studia, non ludi, non convivia*, as if they naturally came together; and 46 *studia delectationis, ludus iocus convivium*. What too are the *convivalia ludorum oblectamenta addita epulis*, which Livy XXXIX 6 8 speaks of as first brought to Rome by the army of Asia? the *ludi* in fact together with the things mentioned in the next v. were for the *comissa-*

tio after the feast, 'cum furit Lyaeus, Cum regnat rosa, cum madent capilli'. 1132 comp. Plaut. asin. 803 *Tum si coronas serta unguenta iusserit* cet.; [Turpilius 201 *Coronam mensam talos vinum, haec huiusmodi, Quibus rebus vita amantum invitari solet.*] *coronae* chaplets for the head, *serta* festoons or garlands to deck the doorways or other parts of the house perhaps; but Tib. I 7 51 *nitido stillent unguenta capillo, Et capite et collo mollia serta ferat*; and Ov. met. IV 7; XIII 929. 1133 comp. Ov. met. VII 453 *usque adeo nulla est sincera voluptas Sollicitique aliquid laetis intervenit. Nequiquam quoniam*: the fondness of Lucr. for this expression, used in this way, is very striking: we had it just above 1110, it recurs below 1188; and it is found five times between V 1127 and 1332, where the poet is discoursing on the vanity of human wishes and efforts. It sounds like an echo of his own feeling, that the things which men most desire are all vanity. Hirt. de bell. Gall. VIII 19 6 *nequiquam*: *nam*...: [comp. *frustra*, *nam* in Catull. 21 7, and *frustra*, *namque* of Horace and Martial quoted by Ellis there.] 1135 *remordet*: see n. to III 827. 1136 *lustris*: Cic. Phil. II 6 *vino lustrisque confectus*; Livy XXIII 45 2 *vino et scortis omnibusque lustris per totam hiemem confectos*; Plaut. curc. 508 *lustris lacerant homines.* 1137 *in amb. rel.*: Hor. epist. I 16 28 *Servet in ambiguo.*

1141—1191: if there are such evils in prosperous, what must be the evils of unsuccessful love? strive then not to fall into love; but if you are caught, use all efforts to escape: yet men stand in their own way, and deluded find beauties even in defects; the discarded lover will refuse all comfort; who yet, if received back, will find out his folly and be glad to get away again. 1141 *proprio* in this sense of lasting is very common; Plaut. most. 224 *fore tibi victum sempiternum Atque illum amatorem tibi proprium futurum in vita*; corp. inscr. 1010; Accius 159; Lucil. XXVII 6 Muell.; Livy XXII 37 5. *secundo* and *adverso amore* are illustrated by Bentl. from Tibullus and Propertius. 1142 *inopi* = ἀμηχάνῳ. ἆ δυσέρως τις ἄγαν καὶ ἀμάχανός ἐσσι. 1143 has the look of a proverb. 1150 *obvius obstes*: comp. *obvius obtulit*, *officere atque obstare* and the like. 1152 *petis*: Livy XL 4 3 *multis petentibus, aspernata nuptias est*; XLII 12 3 *Seleuci filiam duxisse eum non petentem, sed petitum ultro*; 16 9 *uxoris petendae praematuram festinationem fratri obiceret. vis*: Plaut. trin. 1160 *quod vis non duces*; Mart. III 11 6 *Si non vult Quintus Thaida, Sextus ames.* 1153 *faciunt*: see n. to 1112. 1157 *süadent* is very unusual; but in Sulpic. Apollin. periocha to Ter. Andr. 8 the mss. have *Davi süasu*; and Plaut. curc. 508 *süadendo*, Epid. III 2 19 *süasi* are possible though uncertain scansions: he uses *suesco* and *suetus* indifferently as dissyll. or trisyll.; *dissolüo* etc. oftener than *dissolvo*; *reliqüus* always; V 679 *conseqüe*; VI 552 and 868 *aqüae*; VI 1072 *aqüai.* 1160 foll. comp. Theocr. id. VI 18 ἦ γὰρ ἔρωτι Πολλάκις, ὦ Πολύφαμε, τὰ μὴ καλὰ καλὰ πέφανται.

1160 *Nigra* cet.: 'Plut. Mor. 45 a τὸν δὲ ὠχρὸν ὑποκοριζόμενος μελίχρουν' J. E. M.: Theocr. x 26 Σύραν καλέοντί τυ πάντες, Ἰσχνὰν ἁλιόκαυστον, ἐγὼ δὲ μόνος μελίχλωρον: with this and what follows comp. the terms of the ἐραστοῦ ὑποκοριζομένου in Plato rep. v p. 474 D: Lucr. has been imitated by Ovid ars II 657 foll. and translated by Molière le misan. II 5 near end: comp. too Hor. sat. I 3 43 foll.; as later on he imitates Lucr. much. *melichrus* occurs more than once as a term of praise in the anthology, and apparently means the same as μελίχλωρος: Ovid l. l. *fusca vocetur, Nigrior Illyrica cui pice sanguis erit*; Molière *La noire à faire peur, une brune adorable. inmunda* cet.: Molière *La malpropre sur soi...Est mise sous le nom de beauté négligée.* 1161 *Palladium*: Cic. de nat. I 83 *caesios oculos Minervae*; Ovid l. l. *si rava, Minervae* i.e. similis. *lignea*: Catull. 23 6 *Et cum coniuge lignea parentis.* 1162 *Parvula*: Ovid l. l. *Dic habilem quaecumque brevis. merum sal*: Bentl. quotes Afranius 30 *quidquid loquitur, sal merum est*: of course neither Bentl. nor I supposed that *sal* here had any special reference to speaking: it is 'esprit,' brilliancy generally: as in Catull. 86 4 *Nulla in tam magno corpore mica salis*: [Mart. VII 25 3 *Nullaque mica salis nec amari fellis in illis Gutta sit.*] 1165 *loquacula* seems not to occur elsewhere. 1166 *ronenion* is found in the anthology. *cum vivere* cet.: Ov. l. l. *Sit gracilis, macie quae male viva suast*; Lucil. II 20 *vix vivo homini ac monogrammo.* 1168 *At tumida*: Ov. l. l. *quae turgida, plenam*: Ov. rem. 327, to cure love, *Turgida, si plena est; si fusca est, nigra vocetur: In gracili macies crimen habere potest. mammosa* etc.: his constant imitator Arnobius III 10 *ab Iaccho Cererem, musa ut praedicat Lucretia, mammosam*, VI 25 *Ceres mammis cum grandibus*: the constr. seems to be *tumida et mammosa est Ceres ipsa* (tumida et mam.) *ab Iaccho*: some legends made Iacchus son of Demeter and brother of Cora: sometimes too, as here, he was represented as an infant at the breast: so Suidas Ἴακχος· Διόνυσος ἐπὶ τῷ μαστῷ: Gerhard in his Bilderkreis von Eleusis I anm. 70 and others illustrate from works of art Demeter κουροτρόφος, suckling an infant at the breast. Iacchus is oftener represented as son of Cora. 1169 *Silena* appears to be invented by Lucr. *satura*: Hesych. σατύραν· καταφερῆ. *labeosa* seems not to be found elsewhere: *labeosa*, as also *labea*; but *labium*: see Lach. and Schuchardt vulg. Lat. II p. 40. 1171 *esto iam*: see n. to I 968 *si iam.* 1173 *Nempe, nempe, Nempe, facit, facere*: comp. *Adde, Adde* and the like. 1174 *eadem turpi*: see n. to III 1038. 1175 *suffit*: Prop. IV (V) 8 83 *quemcumque locum externae tetigere puellae Suffit.* 1178 *Floribus et sertis*: strewing perhaps the lower *limen* or sill with loose flowers, and hanging the upper or lintel with festoons: Ovid ars II 527 *Postibus et durae supplex blandire puellae Et capiti demptas in fore pone rosas*; III 72 *Sparsa nec invenies limina mane rosa*; rem. 32 *Et tegat ornatas multa corona fores*; Prop. I 16 7 *mihi non*

desunt turpes pendere corollae; Juv. vi 51 *necte coronam Postibus et densos per limina tende corymbos*; Augustus in his res gestae vi 16 *laureis postes aedium mearum vincti sunt publice coronaque civica super ianuam meam fixa est*: or it may be a hendyadis for *floridis sertis*: Tib. i 2 14 *cum posti florida serta darem*; Catull. 63 65 *Mihi ianuae frequentes, mihi limina tepida, Mihi floridis corollis redimita domus erat. postis Unguit amarac.*: 'my beloved put in his hand by the hole....I rose up to open to my beloved, and my hands dropped with myrrh and my fingers with sweet smelling myrrh upon the handles of the lock. I opened to my beloved'. *superbos*, haughty and unrelenting as their mistress. 1179 *foribus* cet.: Aen. ii 490 *Amplexaeque tenent postes atque oscula figunt*; [Callimachus (see Hermes x p. 4—6) Ἐλθὼν δ' οὐκ ἐβόησα, τίς ἢ τίνος, ἀλλ' ἐφίλησα Τὴν φλιήν.] 1180 *venientem* follows on the *iam amm.*, coming after leave given; exactly as 1177 *lacrimans exclusus* is weeping because shut out: a copula, instead of being necessary, would be very awkward. 1181 *modō*: see n. to ii 1135. 1182 *cadat*: Wak. compares Virg. geor. iii 138 *Rursus cura patrum cadere*; but there the force of the word is not very clear; see Conington: *cadat* is perhaps like ii 1175 *incassum cecidisse*; see Forc. 1183 *Stultitia*: '*damnatur* aliquis *crimine* vel *iudicio*, sed *sceleris parricidii furti iniuriae.* in Ciri 188 quod habent exemplaria *tanto scelere damnare puellam* neque modulatum est neque Latinum' Lach. He states correctly the usual Latin constr.; but N. P. Howard justly refutes his alteration by citing Cic. Phil. xiii 27 *quo scelere damnatus*: comp. too Suet. Otho 2 *damnatum repetundis consularem virum.* The same rule holds of *arguo, convinco*; yet Sen. Herc. Oet. 898 *Si te ipsa damnas, scelere te, misera, arguis*; Oed. 916 *se scelere convictum Oedipus Damnavit ipse*; Suet. Nero 31 *scelere convictos*: Tac. ann. i 74 *maiestatis postulavit*; but iii 38 *postulaverat repetundis*; Aen. ii 229 *scelus expendisse*=xi 258 *scelerum poenas expendimus.* 1186 *poscaenia*: the Latins often said *pos* or *po* before many consonants, *pos tempus posquam pomeridianus* and the like: Ribbeck I see repeatedly introduces such forms into Virgil; see notes 1 to 1252: Cic. orator 157 prefers *posmeridianus* to *postmer.*, and Livy xlii 10 5 the ancient and sole ms. has *posquam.*—Yet Mommsen, ephem. epigr. i p. 78, I find says '*pos* quod est pro *post* sequente denuo littera *t*, quem solecismum hodie multi religiose magis colunt quam erudite, diplomata ad Marcum usque ignorant, ab a. inde 216 perpetuo scribunt *postemplum*, ut hoc scribendi vitium appareat monumenta publica invasisse aetate Severi et Caracallae.'

1192—1208: yet women sometimes feel true love in return. 1195 *facit ex animo*: Ter. Andr. 794 *ex animo omnia, Ut fert natura, facias an de industria.* 1196 *spat. dec. am.*: iii 1042 *decurso lumine vitae*; Ov. trist. iii 4 33 *pede inoffenso spatium decurrere vitae.* 1199

Si non . . quod: see n. to I 176. *illorum* neut. may mean the females, according to Lucretius' usual practice when the reference is to different genders *volucres armenta* cet. *subat* in good writers seems always to be said of the female in heat. 1205 *Quom interea* seems a harsh elision; and none other like it is found in Lucr.; for II 850 *Quoad licet* is a synizesis: Virg. ecl. III 48 *Si ad vitulam*, and this eclogue appears to be one of his earliest; in Catullus such elisions are frequent; 64 305 he has *Cum interea*, as Lucr. here: 809 *contendere se atque parare*, the elision seems to have a similar effect: and 1145 *caveraque ne inliciaris*. [Comp. Lucil. XI 13 *non contemnere se et* cet. But probably *quom interea* 'while all the time' was so common a phrase that the words could not well be separated: for this use of *quom interea*, *interim* see Autenrieth die conj. *quom* p. 286 E.] *val. Ven. com.*: 1148 *validos Veneris perrumpere nodos*. 1207 *iac. in fr.*: 817 *nos in fraudem induimus*.

1209—1232: according as the seed of the man or woman prevails at conception, the child is more like to the one or to the other; and this is so whether the child be male or female. 1209 *comm.* cet. i.e. comm. semine suo virili semine: but *commiscendo semen* would make the constr. simpler and be perhaps more in the manner of Lucr.: comp. I 1026, III 1087, V 722. 1210 *vim vicit vi*: in a very similar passage of Hippocr. de genit. 7 *ἐκρατέετο* is used in the same way; comp. too Plut. de plac. phil. V 11 where it is given as a stoical doctrine, *κἂν μὲν ἐπικρατήσῃ τὸ τῆς γυναικός, ὅμοιον εἶναι τὸ γεννώμενον τῇ μητρί, ἐὰν δὲ τὸ τοῦ ἀνδρός, τῷ ἀνδρί*: Censor. de die nat. 6, p. 16 13 refers this theory to Anaxagoras: *Anaxagoras autem eius parentis faciem referre liberos iudicavit, qui seminis amplius contulisset*. Epicurus may have got this as many other things from him; but Hippocrates, whom Lucr. had evidently studied, de genit. 7 and 8 teaches precisely the same; comp. especially 8 *ὁκότερος δ' ἂν πλέον ξυμβάληται ἐς τὸ ἐοικέναι καὶ ἀπὸ πλεόνων χωρίων τοῦ σώματος, κείνῳ τὰ πλείονα ἔοικε· καὶ ἔστι ὅτε θυγάτηρ γενομένη ἔοικε κάλλιον τῷ πατρὶ ἢ τῇ μητρὶ καὶ κοῦρος γενόμενος ἔστι ὅτε κάλλιον ἔοικε τῇ μητρὶ ἢ τῷ πατρί*: Lactant. de opif. dei 12 closely copies Lucr. but attributes the theory to Varro and Aristotle: *cum semina inter se permixta coalescunt, si virile superaverit, patri similem provenire, seu marem seu feminam; si muliebre praevaluerit, progeniem cuiusque sexus ad imaginem respondere maternam*. 1211 *matrum*, *Ut patribus*: Cic. de fin. V 12 *patri similis esse filius*; where Madvig thinks *patris* to be perhaps right, as Cicero and the older writers usually have a gen. of living things, especially men and gods, while with inanimate things the gen. and dat. are employed promiscuously: the dat. in later writers became almost universal: 1218 Lucr. has *similes avorum*; II 909 *simili totis animalibus*; IV 1230 *utri similest id*, neut. but referring to a living child: Madvig l. l. quotes Cic. de nat. deor. II 149 *plectri similem linguam nostri solent dicere, chordarum dentes, nares cornibus iis qui* cet. where,

as in Lucr., both cases are found together: 'Plaut. Men. 1089 *Neque aqua aquae neque lacte lacti* (mss. *lactis* Ritschl), *mihi crede, usquam similiust, Quam hic tui est tuque huius autem*' J. E. M.; [Amph. 595 *Neque lac lacti magis est simile quam ille ego similis est mei.*] 1213 *vulta*: Nonius p. 230 quotes this v. and from Ennius *vostraque vulta.* 1216 *confl.* is active in Cic. de inv. II 126. 1217 *neque utrum* i.e. neutrum: so V 839 *nec utrum*; Mart. V 20 11 *necuter*; Orell. inscr. 4859 *in . necutro . mihi . consto*: *neuter* is only *ne* or *nec uter*; *ne* or *nec* being the old negative; see n. to II 23. 1220 *Propterea* cet.: Aristotle, who discusses these very questions de gen. anim. IV 3 p. 769 1 foll., finds then all more difficult to answer than Lucr. does: so l. l. 24 διὰ τίν' αἰτίαν ἐοικὸς γίνεται τοῖς προγόνοις ὡς ἐπὶ τὸ πολὺ καὶ τοῖς ἄποθεν; οὐ γὰρ ἀπ' ἐκείνων γ' ἀπελήλυθεν οὐθὲν τοῦ σπέρματος. 1225 (1227)—1228 (1226) must come in the order here given; for surely *voltus vocesque comasque* are comprehended in *facies et corpora membraque*; and if they were not, what reason could there be for the poet's asserting that they are as uncertain in their origin, as the body generally? just as if any body were likely to think that the less essential were more unvarying than the more essential: this indeed induced Lamb. to read *minus* for *magis.* Again, as Lach. says himself, *de semine certo* is here *aut virili aut muliebri*, one not both; and is opposed to 1229 *duplici de semine*, and forms a contrast with it: 1225 (1227) in fact begins a new question, which Arist. l. l. thinks it not easy to explain; why namely a male child may be more like the mother, a female like the father. 1225 *patrio*, i.e. as well as *materno.* 1226 *Materno*, i.e. as well as *patrio.* 1227 *haec*, i.e. the distinctions of sex no more come *certo semine*, from either the father's or the mother's alone, than the form and features: Hippocr. l. l. emphatically asserts the same: thus 7 οὗτος ὁ λόγος αἱρέει καὶ τὸν ἄνδρα καὶ τὴν γυναῖκα ἔχειν καὶ θῆλυν γόνον καὶ ἄρσενα, and 8 at end καὶ ταῦτά μοι καὶ τοσαῦτά ἐστι ἱστόρια τῷ προτέρῳ λόγῳ, ὅτι ἔνεστι καὶ ἐν τῇ γυναικὶ καὶ ἐν τῷ ἀνδρὶ καὶ κουρογονίη καὶ θηλυγονίη: comp. this with Aristotle's doubts and difficulties. 1231 *possis*: see n. to I 327.

1232 *virum suboles* would commonly mean the whole male sex; so in Cic. *omnem iuventutis subolem* = omnem iuventutem; *proles illa futurorum hominum* = futuri homines; and Virgil has *prolem parentum* for the stock to which the parents belong; Pliny *Sarmatae Medorum suboles*, of the same stock as the Medes; Ov. fasti I 449 *volucrum proles*; Lucr. himself II 662 *equorum duellica proles*; V 856 *procudere prolem* = 850 *procudere saecla*, their race; and III 741 *triste leonum seminium* = tristes leones, where see note; IV 998 *catulorum blanda propago* = catuli blandi. But here *virum suboles* means one out of the male sex; what Livy I 1 11 calls *stirps virilis*; and comp. his *nullam stirpem liberum, ex tanta stirpe liberum, ex magna progenie liberorum*, all within a few chapters in XLV. Exactly thus Hor. od. 13 8 *Lascivi suboles gregis* means one out of the

suboles lascivi gregis i.e. a kid; for *lascivus grex* cannot mean anything but the young kids; Apul. met. x 32 *innuptarum puellarum decorae suboles*: in no other way can I understand *sanguis meus, genus deorum, deum gens* and the like, than as meaning belonging to my blood, one of the race of gods etc.; Aen. x 228 *deum gens, Aenea* seems synon. with VIII 36 *sate gente deum*: so too I understand VI 792 *divi genus* compared with *divum genus*; and Lucr. I 42 *Memmi propago* compared with IV 998 *catulorum propago*. *origo* has here the meaning of *partus* or birth: perhaps *mul. or.* is literally the beginning of a woman.

1233—1277: it is not the gods who grant or withhold offspring: conception depends on the due assortment of man and wife. 1233 *cuiquam Absterrent*: see n. to 1064. 1236 *Quod* cet.: VI 1015 *Quod facit et sequitur*. 1237 *adolent*: Aen. V 54 *strueremque suis altaria donis*, XI 50 *cumulatque altaria donis* being compared, this ambiguous word would seem to have the sense here of causing to grow, increasing, and so piling up: Virg. geor. IV 379 *Panchaeis adolescunt ignibus arae*, *adolescunt* seems to be its neut., 'grow' or 'are piled up'; but in Lucr. 'cause to smell' or 'burn' would give a suitable sense; see Conington to Virg. ecl. VIII 66. The notion of increase would appear to be the most natural, if the word had come to be merely one of good omen and conveyed only a conventional meaning to a Latin ear; as it would seem to have done to Tacitus', who in ann. XIV 30 has *cruore captivo adolere aras*; in VI 28 *subire patrium corpus inque solis aram perferre atque adolere*. However Ov. met. I 492 *adolentur* = simply *uruntur*. 1239 *sortis*: Juv. I 82 *sortesque poposcit*: Cic. de div. II 86 says *hoc quidem genus divinationis vita iam communis explosit. fani pulchritudo et vetustas Praenestinarum etiam nunc retinet sortium nomen, atque id in volgus*: these *Praenestinae sortes* he describes l. l. 85 as *in robore insculptas priscarum litterarum notis*: Ritschl Rhein. mus. n. f. XIV p. 389 foll. amends and explains some very singular old hexameters, containing a series of *sortes*, such as these must have been. *fatigant*: II 1172 *caelumque fatigat*. 1242 *locis adf. adh.* seems not unlike Aen. IX 536 *Et flammam adfixit lateri*; [Plaut. Amph. 858 *Huc...adventum adporto*.] 1244 *his* i.e. aliis, with reference to 1240 *partim*. 1246 *penetratum*, because *penetro* and *penetro me in* are equally in use. 1250 *Succipiunt*: V 402 *succepit* A: Ribbeck admits this form four times into the Aeneid with more or less ms. authority; and Servius thrice repeats that *succipio* is the old form. *ingravescunt* seems not to occur elsewhere in the sense of becoming big with child. 1252 *unde* i.e. eas ex quibus. *puellos*: Nonius p. 158 quotes this v. and Ennius Lucilius and Varro for this form. 1254 *fecundae*: the wife may be able to bear and the man to beget; but they may not suit one another; though in another marriage the man may have children. 1259 *lĭquidis et līquida*; see n. to II 452: the juxta-position here seems almost as

bold as Homer's Ἄρες Ἆρες which Martial IX 11 15 thinks utterly impossible in Latin; Bekker finds it so in Homer as well; but the poets seem often to feel a pleasure in such contrasts of quantity: III 145 *Idque sibī...id sibĭ gaudet*; Tib. II 3 27 *Delos ubī...ubĭ Delphica Pytho*; Prop. II 3 43 *ostendet ĕois, Uret et ēoos*; Martial himself IV 89 1 and 9 *ōhe iam satis est, ŏhe, libelle*; II 18 1 *Captŏ tuam, pudet heu, sed captō*; I 36 1 *Si, Lucane, tibi vel si tibi, Tulle*; VII 60 7 *Te pro Caesare debeo rogare, Pro me debeo Caesarem rogare*; [XI 12 2 *Dum matrem nemo det tibi, nemo patrem.*] With a short vowel before a mute and liquid this variation is even more frequent: IV 403—406 *sūpra, sŭpra, sūpra*; 1222 *Quae pătribus pātres*, as Aen. II 663 *Gnatum ante ora pătris, pātrem qui*: in these three instances too as well as in one from Martial the lengthening as well as the shortening is in the thesis of the foot: V 839 *interŭtrasque nec ūtrum ŭtrimque*; 1163 *săcra, săcra*; Ov. met. XIII 607 *volŭcri mox vera volūcris*; V 129 *ditissimus āgri, Dives ăgri*; Hor. od. I 32 11 *Et Lycum nīgris oculis nĭgroque*: Theocr. VI 19 τὰ μὴ κᾰλὰ κᾱλὰ πέφανται; VIII 19 ἴσον κάτω ἶσον ἄνωθεν; and Callimachus has the very same variations; for which they and their Alexandrine compeers are bitterly assailed by Cobet var. lect. p. 396; but they have greater crimes than these to answer for: Theocr. XVIII 51 Εὐτεκνίαν, Κύπρις δὲ θεὰ Κύπρις. 1262 *extenvantur*: so *tenvis* he uses oftener than *tenŭis*; but I 317 *adtenŭari.* 1271 *exossato*: Apuleius twice uses *exossa saltatio* in the same sense. 1272 *Eicit*: III 877 *et eicit*, where see note. 1274 *Idque moveri*: comp. III 569 *moventur Sensiferos motus quos...haut possunt...moveri*; for the neut. pron. is equivalent to a cognate accus.: VI 404 *quid undas Arguit*?

1278—1287: often by her own virtues, from no divine interposition, a woman without personal attractions will endear herself to her husband. 1278 *Nec divinitus*: οὐδὲ θεόπεμπτον εἶναι τὸν ἔρωτα is a saying of Epicurus recorded in Diog. X 118. 1282 *insuescat te*: VI 397 *An tum bracchia consuescunt*; V 1368 *fructusque feros mansuescere terram*, a conjecture of Lach. but I think a certain one: Hor. sat. I 4 105 *insuevit pater optimus hoc me*; II 2 109 *adsuerit mentem corpusque superbum*; Aen. VI 832 *ne tanta animis adsuescite bella*; Varro de re rust. II 1 4 *silvestria mansuescerent*; Titinius 46 *desuevi* i.e. eum *ne*; Columella thus uses *consuesco* and *insuesco*, each more than once. The passive partic. *suetus adsuetus desuetus consuetus mansuetus* are much more in use; see n. to III 772. 1283 has a proverbial sound: comp. the use of *consuesco*; and Livy XXXIX 9 6 *huic consuetudo* cet. and 7 *eo profecerat consuetudine capta...ut unum Aebutium institueret heredem*: Ov. ars II 345 *Fac tibi consuescat*: *nil adsuetudine maius.* 1286 *guttas* cet.: a common-place employed by Tibullus Propertius and Ovid; comp. too I 313 *Stilicidi casus lapidem cavat.*

BOOK V

1—54: who, o Memmius, can adequately extol the man who discovered this system of true wisdom? not Ceres, not Liber, far less Hercules can be compared with him: they only gave to men physical comforts or freed them from physical dangers: he bestowed on us the blessings of right reason and freed us from the far worse terrors of superstition and of the passions: surely then he deserves to be ranked as a god, the more so that he first explained the true nature of the gods.

1 *Quis potis* cet.: Enn. ann. 178 *Quis potis ingentis oras evolvere belli?*: Lucr. omits the verb subst. with *pote*; but not with *potis*, as Ennius Plautus etc. do. *dignum pro*: Cic. in Caec. div. 42 *timeo quidnam pro offensione hominum...et exspectatione omnium et magnitudine rerum dignum eloqui possim*: nay Cicero's words may have been in the poet's mind: Ter. hec. 209 *an quicquam pro istis factis dignum te dici potest?*; Sall. Catil. 51 8 *si digna poena pro factis eorum reperitur*; and perhaps Hor. epist. I 7 24 *Dignum praestabo me etiam pro laude merentis.* *poll. pect.*: I 414 *Lingua meo suavis diti de pectore fundet*; see n. there: IV 914 *Vera repulsanti discedas pectore dicta*; and, just below, 5 *Pectore parta suo* cet.: Ov. fasti II 120 *Velle, Maeonide, pectus inesse tuum.*
2 *Condere*, the technical word, even in prose; see Forc.; hence Virg. ecl. II 4 *haec incondita*; and Livy *incondita carmina*, *inconditi versus*, and the like. **5** *parta* and *quaesita* appear to be synon.; see n. to IV 274: [but Mueller Lucil. II 30 (p. 201) says it is a ὕστερον πρότερον.]
7 *cognita*: Tib. IV 11 *cognita virtus*; Livy VII 40 19 *cognitae fidei*.
8 *deus* cet.: Virg. ecl. V 64 *deus deus ille, Menalca*; [Stat. silv. IV 6 36 *deus ille, deus*:] see n. to II 1092, and comp. Cic. Tusc. disp. I 48 quoted there. *incl. Memmi*: see n. to II 1080. **10** *appell. sap.*: Enn. ann. 227 *Nec quisquam sophiam, sapientia quae perhibetur, In somnis vidit priu' quam sam discere coepit*, imitated by Afranius in Gell. XIII 8 *Sophiam vocant me Grai, vos sapientiam.* *quique per artem*: Virg. geor. I 122 *primusque per artem Movit agros*: Aen. X 135 *quale per artem*; Manil. I 51 *primique per artem* cet.; for *princeps* belongs also to *quique per artem*: *artem* = rationem 'quam licet, si volumus, appellemus artem' says Cic. de orat. II 148. **12** *tranquillo*: *tranquillum* is the proper term for a calm, used by Cicero and the best writers, and often metaphorically as here: so Livy III 14 6 *nec cetera modo tribuni tranquillo peregere*; XXVIII 27 11 *ita aut tranquillum aut procellae in vobis sunt*; Ter. eun. 1038 *esse amorem omnem in tranquillo*: Lucil. in Nonius p. 388 has *te in tranquillum ex saevis transfer tempestatibus*: comp. also Plut. max. c. princ. viris 3 p. 778 C

Ἐπίκουρος τἀγαθὸν ἐν τῷ βαθυτάτῳ τῆς ἡσυχίας ὥσπερ ἐν ἀκλύστῳ λιμένι καὶ κωφῷ τιθέμενος. 13 *Confer enim*: so Cicero *attende enim paulisper*; *audiamus enim Platonem* and the like. *divina antiqua reperta*: 490 *altaque caeli . . fulgentia templa*; 24 *Nemeaeus magnus hiatus Ille*; 32 *Aureaque Hesperidum fulgentia mala*; 295 *claraeque coruscis Fulguribus pingues taedae*; 663 *Idaeis montibus altis*; 1063 *Inritata canum magna Mollia ricta, duros nudantia dentes*: so *candens lucidus aer*, *miserandum magnopere unum Aerumnabile*; also 1436 *magnum versatile templum*; II 7 *bene quam munita tenere Edita doctrina sapientum templa serena*; IV 212 *serena sidera radiantia*; 624 *Umida sudantia templa*: see also n. to I 258 *candens lacteus umor*: two participles are also found, as IV 1177 *lacrimans exclusus*, 1180 *iam ammissum venientem*. 14 *Namque* or *nam* introducing the details of a general statement is common enough in Latin, though less so than γάρ in Greek. *Ceres . . mort. inst.*: probably imitated by Virg. geor. I 147 *Prima Ceres ferro mortalis vertere terram Instituit*; yet the exact force of *instituisse* in Lucr. is not very clear: is it merely 'introduced and set up'? as Cic. ad fam. XIII 48 *ea te instituere quae sequantur alii*: or does it imply the planting also of the vine and sowing of the corn? as Cic. de lege agr. II 67 *iugera* ccc, *ubi institui vineae possunt*: Aen. VI 69 *Tum Phoebo et Triviae solido de marmore templum Instituam festosque dies de nomine Phoebi*, the word seems to have a similar literal and metaphorical sense. 15 *Vitigeni* recurs VI 1072; *vitigeneus* is the usual form of the adj.

[22 *Herculis*: Nettleship (Suggestions on the Aeneid p. 40) 'Hercules the god whom the Stoics, now the supporters of Roman orthodoxy, delighted to honour, and whose merits Lucretius on the other hand postpones to those of Epicurus': (n. 2) 'on this point see Bernays Herakl. Briefe p. 45.'] 24 *Nemeaeus hiatus leonis*: see n. to I 474 *Alexandri Phrygio sub pectore*. 25 with rhythm comp. Virg. geor. III 255 *Ipse ruit dentesque Sabellicus exacuit sus*. 27 *vallata col.*: ciris 79 *Piscibus et canibusque malis vallata repente est*: Sen. Herc. Oet. 1193 1194 seems to refer to 24 and 27. 28 *tripectora* seems to be a ἅπαξ λεγόμ.: Virgil and others have *tricorporis*. *Geryonai*: Lucil. V 43 Muell. *Tiresiai*. 29 unless *Stymphala* agrees with a subst. in the lost v., it is an unusual form, like 31 *Ismara*. 30 *spir. n. ig.*: Virg. geor. II 140 *tauri spirantes naribus ignem*; Aen. VII 280 *geminosque iugalis . . spirantis naribus ignem*: Eur. Alc. 509 Hercules promises to bit them, εἰ μή γε πῦρ πνέουσι μυκτήρων ἄπο. 31 *Thracis*, the usual epithet to distinguish him from the other Diomede of whom Virg. Aen. I 752 says *Nunc quales Diomedis equi*: comp. Eur. Alc. 499 Θρῃκὸς τέτρωρον ἅρμα Διομήδους μέτα: Ovid met. IX 194 *Quid quod Thracis equos humano sanguine pinguis*, in the midst of a like enumeration of Hercules' labours; and Sen. Herc. Fur. 1169 *currus truces Thracis cruenti*; [Herc. Oet. 1789 *si quis Ismarius greges Thracis*

cruenti vindicat;] Hor. od. II 19 16 *Thracis et exitium Lycurgi. que* and *atque*, or *que* and *et* coupling two words as here, appear not to be found in Cicero or Caesar; but *que* and *et* are found in VI 1102 *Intempestivis pluviisque et solibus*; and are thus used by Terence. Sallust, Val. Maximus, Livy and the later writers; and Wagner quaest. XXXV 23 gives several instances from Virgil of *que* and *atque* thus used, as Aen. VIII 486 *Componens manibusque manus atque oribus ora*: Tac. ann. IV 34 *opibusque atque honoribus*; Ov. met. IV 429 *satisque Ac super*; [Livy XXVI 24 6 *iurisque ac dicionis.*] 33 *Asper* cet.: Macrob. sat. VI 1 30 compares Aen. IX 794 *Asper acerba tuens retro redit*: comp. too geor. III 149 *Asper acerba sonans*; Aen. VIII 330 *asperque immani corpore Thybris.* 35 *pelage recurs* VI 619: *mele* he also twice uses: Virgil has *cete.* *sonora* of Nicc. is confirmed by Stat. Achill. I 223 *Gurgite Atlanteo pelagi sub valle sonora*, cited by L. Mueller in Jahn's Jahrb. for 1866 p. 393; though it does not seem to me quite certain, as Statius clearly could not there use *severa*, which I still think well in place here. 36 *audet* i.e. adire, understood from *adit*: Caes. bell. Gall. IV 2 5 *ad quemvis numerum...adire audent*; [IV 20 3 *neque enim temere...illo adit quisquam*:] for omission of inf. comp. Cic. ad Att. IV 3 3 *occidit homines . . ipsum cupivit*: unless *quo audet* resemble Aen. II 347 *audere in proelia*: Juv. II 2 has *quotiens aliquid de moribus audent.* [39 foll. (with reference to Conington's remarks on this passage) even now in India thousands are killed yearly by tigers and serpents, though fewer of course than in Lucretius' time: see too Friedlaender, Sitteng. II p. 373, and Strabo quoted there, who says that whole countries, cultivated in his time, had before been uninhabited by reason of this terror.] 40 *scatit*, as VI 891; and *scatĕre* three times. 41 *silvasque profundas* are much the same as Virg. geor. II 391 *saltusque profundi*; the *saltus* are the lawns and long defiles sweeping down from the hills to the low valleys and plains; the *silvae* represent these more or less covered with wood: *nemora* and *silvae* are often found without distinction of meaning; but often too, as here, they are used together, even by Cicero; and then Servius to Aen. I 310 appears to define them correctly, '*nemus* composita multitudo arborum, *silva* diffusa et inculta': thus Ovid met. I 568 *Est nemus Haemoniae, praerupta quod undique claudit Silva: vocant Tempe*: this Livy XLIV 6 calls a *saltus*: and Enn. ann. 557 joins *silvarum saltus*: Livy IX 2 7 *saltus duo alti, angusti silvosique sunt.* Whoever has come Ἀρκαδίας ἀπὸ δειρᾶν καὶ πολυγνάμπτων μυχῶν, will understand this v. of Lucr.: the *silvae* ran up to and covered much of the *magni montes* of Greece and south Italy: 955 and 992 are nearly repetitions of this v.; comp. too 1386. 42 *est nostra pot.*: see n. to II 53 *sit haec rationi' potestas.* 43 *purgatumst pectus*: VI 24 *Veridicis igitur purgavit pectora dictis.* 44 *quae proelia insinuandum*: see n. to I 111.

45 *scindunt* cet.: III 994 *Aut alia quavis scindunt cuppedine curae.* 47 *spurcitia* would seem to mean filthy lust: so Martial *spurcas lupas, spurcae Ledae* of harlots; and Plaut. capt. 56 *spurcidici versus inmemorabiles.* It may however be αἰσχροκέρδεια, sordid avarice: so Martial IV 56 3 *Sordidius nihil est, nihil est te spurcius uno, Qui potes insidias dona vocare tuas*; Cic. Verr. (2) I 94 *homo avarissime et spurcissime*: Nonius p. 393 gives as the first meaning of *spurcum*, saevum sanguinarium: Plaut. trin. 825 *te omnes saevumque severumque, avidis moribus, commemorant, Spurcificum immanem intolerandum vaesanum*; where it might have either of the last two meanings. 48 *lux. des.* found together Sall. Catil. 53 5 *postquam luxu atque desidia civitas corrupta est. desidiae* is also plur. Aen. IX 615 *Desidiae cordi*: Lucr. III 142 *Laetitiae*; Plautus in the trinummus has *parsimoniae* and *opulentiae*; ib. 509 the Ambrosian has *de stultitiis meis.* 49 foll. surely then the man who has subdued all these more frightful monsters, and delivered the mind, not the mere body, by reason and not by mere force, deserves to be deemed a god, if Hercules gained that distinction for the lesser exploits. 51 *numero divom esse*: 'post *numero* lege *in*' Bentl. who refers to 123 *Inque deum numero* and 180 *Nec fuit in numero*: and so I 446 *rerum in numero relinqui*, 691 *in numero rerum constare*; and Cicero *in numero esse deorum, hostium, iudicum* and the like, or *ex numero*: [Caes. b. Gall. VI 23 8 *in desertorum ac proditorum numero ducuntur*:] Quintil. *in numero veterum habere*, but III 6 102 *si esset numero alienorum*: Caes. bell. civ. III 110 4 *ut dato nomine militum essent numero*; [III 59 1 *erant apud Caesarem equitum numero Allobroges duo*: see Kraner (Hofmann) here: b. Gall. VI 21 2 *deorum numero eos solos ducunt, quos cernunt*; Pollio ap. Cic. epist. X 31 6 *quod familiarem meum tuorum numero habes*;] Livy IV 4 12 *ut hominum, ut civium numero simus*; 56 11 *non civium, non denique hominum numero essent*; XLIII 3 4 *uti numero colonorum essent*; XXXVI 35 9 *utrum hostium an pacatorum eos numero haberet*: again Cicero says indifferently *esse in loco, in numero*, or *loco, numero parentis*; *esse aliquo* or *in aliquo, nullo* or *in nullo numero*; and this sense easily shades off into the other: [see Draeger hist. synt. I p. 356 d.] Lactant. III 14 quotes the v. and strangely supposes Lucr. is praising Thales or Pythagoras. *dignarier* I take to be pass. according to the usage of Cicero and the older writers: Nonius p. 281 among other passages cites Cic. de orat. III 25 *quae tamen consimili laude dignentur.* The infin. after *dign.* which is unusual, he illustrates by 'Accius in Neoptolemo *sed quem mihi iungent cuique* (?) *dignabor dari*': comp. 65 *consistere* cet., though the infin. is not usual after *ratio reddunda*, but a gen. or a prepos. or a dependent clause, as 67 foll. 51 in the fragments of Philodemus περὶ εὐσεβείας tab. 66 after a long string of epithets in praise of Epicurus, ending with καὶ ἅγιον καὶ

ἁγιώτατον, is added διὸ καὶ μόνον μεγίστην εὐσέβειαν ἐζηλωκέναι φασὶ καὶ δοξάζειν ὁσιώτατα περὶ θεῶν. 53 *de diris*: 'quippe qui libros singulares scripsit περὶ θεῶν et περὶ ὁσιότητος' Bentl.: Cic. de nat. deor. I 115 *at etiam de sanctitate, de pietate adversus deos libros scripsit Epicurus*: they are often quoted in that work of Philodemus. 54 *pandere*: I 55 *rerum primordia pandam*; 126 *rerum naturam expandere dictis.*

55—90: following in his steps I teach the inexorable laws by which all things are bound: having proved the soul to be mortal and shewn how images in sleep cheat the mind, I go on to prove the world to be mortal and to have had a beginning, and to describe how all its parts were formed; what creatures sprang from the earth, what never existed; how fear of the gods fell upon men: the natural courses too of the heavenly bodies I will explain, that men may not fancy they are directed by the gods and be enslaved by religion. 55 Livy XXXVII 53 11 Eumenes says of his father *huius ego vestigia ingressus.* 58 *Nec valeant* i.e. quamque non valeant: but perhaps *Nec* rather connects what follows with what precedes in the way illustrated in n. to I 718. *validas valeant*: see n. to 826 *sonitu sonanti.* 59 *reperta est* i.e. in III. 61 comp. III 605 *Non modo non omnem possit durare per aevom.* 62 *simulacra* cet.: IV 34 foll.; comp. too I 133 *somnoque sepultis, Cernere uti videamur eos* cet.: as far as the general theory of images is concerned, this topic can form but a very small part of it; but morally speaking, to an epicurean it is the most important of all, as the great end of physics is to free men from religion and fear of death; hence the earnestness with which Lucr. insists upon it. *Sed* i.e. repertum est, understood from *reperta est*: comp. n. to 853. 63 *cum videamur*: see n. to III 736 *Cum subeant.* *quem vita reliquit* is the same as *qui vitam reliquit*: thus he says both *eum mortis letique potitum* and *quem mors et terra potita est*: Aen. VI 735 and Ov. met. XI 327 *vita reliquit.* 64 *Quod superest* begins the apodosis of the sentence which commenced at 55.

65—81: he here enumerates most of the subjects treated of in this book, which do not however all follow in the order observed in this summary: 65 66 these questions are discussed 235—415: 67 *Et quibus—Lunaique globum*, these in 416—508 and 534—563: 69 *tum quae—Extiterint*, this in 783—877: 70 *et quae—natae*, this in 878—924: 71 *Quove modo—nomina rerum*, this in 1028—1090: 73 *Et quibus—divom*, this in 1161—1240: 76 *Praeterea—ratione putemus*, these in 564—770.

67 *Et quibus* cet.: 416 *Sed quibus ille modis coniectus materiai Fundarit terram* cet. 70 *et quae nullo* cet.: 878 *Sed neque Centauri fuerunt, nec tempore in ullo Esse queunt* cet. 71 *Quove*: see n. to I 57. 72 *vesci*: Nonius p. 415 '*vesci* etiam significat *uti*': he quotes this passage and Aen. I 546 *si vescitur aura Aetheria*; from Pacuvius *arte hac vescimur* and *vescatur armis*; from Accius *armis vesci* and *vesci praemiis*; and Cic. de fin. V 57 *vesci voluptatibus*: *vesci* therefore=frui;

and so 857 *quaecumque vides vesci vitalibus auris.* 75 *lacus*, such as the *Ampsancti valles*, 'i.e. omni parte sancti', as Servius says; the lake of Nemi, the 'speculum Dianae' of Aricia: Cic. Verr. v 188 *sanctissimae deae, quae illos Hennenses lacus lucosque incolitis*; iv 107 *Henna... quam circa lacus lucique sunt plurimi*; Livy xxiv 38 8 of the divinities of Henna, *qui hanc urbem, hos sacratos lacus lucosque colitis*; where *lacus* and *luci* come together as in Lucr.: Ov. ex Ponto ii 10 25; [fasti iii 263 *Vallis Aricinae silva praecinctus opaca Est lacus antiqua religione sacer*; Mart. ix 58 1 *Nympha, sacri regina lacus*: see too Sen. epist. 41.] 76 *solis* cet.: i 128 *solis lunaeque meatus Qua fiant ratione*; Aen. vi 849 *caelique meatus Describent radio.* 77 *flect. nat. gub.*: the metaphor from steering a ship: 107 *Quod procul a nobis flectat fortuna gubernans*; which comes to the same thing, as the epicurean nature is at one and the same time blind chance and inexorable necessity; vi 31 *Seu casu seu vi, quod sic natura parasset*, where *casu* and *vi* are different expressions for the same thing. 82—90 are word for word the same as vi 58—66, the last two vss. recurring again and again: indeed the whole of this paragraph 55—90 in character and manner much resembles vi 26—89, i 54—61, 127—135, iv 26—52 and some others: these are all introductions to what follows and have an awkward constrained and unfinished style about them, as if written against the grain in order to complete for the time what was wanting. In our passage of six and thirty lines the first one and twenty form a single long loose ill-assorted ill-constructed sentence; the last nine are word for word repeated elsewhere. All this is another proof that the author left his work in an unfinished state. 82 *qui didicere*: Hor. sat. i 5 101 declares himself one of these: *namque deos didici securum agere aevum*; and if we are to believe him in od. i 34 *Parcus deorum* cet., he proved the truth of Lucretius' *Si tamen interea mirantur* cet.: comp. too Ovid ars i 639 *Nec secura quies illos similisque sopori Detinet.* 87 *dominos acris* cet.: Cic. de nat. i 54 the epicurean Velleius says *inposuistis in cervicibus nostris sempiternum dominum quem dies et noctes timeremus; quis enim non timeat omnia providentem et cogitantem et animadvertentem et omnia ad se pertinere putantem curiosum et plenum negotii deum?* 89 90 see i 76 77.

91—109: well, as to the first question: this world and all its parts had a beginning and will have an end: nay, any moment you may see it all tumbling into ruin; may fortune avert this in our time! 91 *ne te in prom.* cet.: vi 245 *neque te in promissis plura morabor.* 92 *Principio*: see above 64 *nunc huc* cet. where this is the first point he promises to discuss. 93 *nat. triplicem* cet.: here he again emphatically dwells on the three great divisions of the world, which the poets have so often adopted from him as he from others: Ovid met. xii 39 *terrasque fretumque Caelestisque plagas, triplicis confinia mundi*; trist.

II 425 *Explicat ut causas rapidi Lucretius ignis Casurumque triplex vaticinatur opus.* imitated in the epic. de morte Drusi 361 *Ecce necem intentam caelo terraeque fretoque Casurumque triplex vaticinatur opus.* ***tria corpora***: Ov. fasti I 105 *et quae tria corpora restant, Ignis aquae tellus*: and with the form of expression *triplicem, tria corpora, Tris species, tria* cet. comp. Cicero's vss. in de div. I 15 *Lentiscus triplici solita grandescere fetu, Ter fruges fundens, tria tempora monstrat arandi.* **95** *Una dies* cet.: Ov. amores I 15 23 *Carmina sublimis tunc sunt peritura Lucreti, Exitio terras cum dabit una dies*; comp. too Lucr. 1000 *Una dies dabat exitio*; and for the general thought II 1148 *magni quoque circum moenia mundi Expugnata dabunt labem putrisque ruinas.* **96** *ruet moles* cet.: Ovid met. I 256 *affore tempus Quo mare, quo tellus correptaque regia caeli Ardeat et mundi moles operosa laboret*; Lucan I 79 *totaque discors Machina divulsi turbabit foedera mundi*; Manil. II 807 *Dissociata fluat resoluto machina mundo*: [Tac. hist. IV 28 has *machinas molemque operum* in a different sense.] *moles et machina* Ovid l. l. intends to express by *moles operosa*: it is not only a vast mass, but a *machina*, a mass of complex and elaborate construction, formed by nature *daedala rerum.* **100** *ubi adportes*: see n. to II 41 *cum videas.* **102** *iacere indu* = inicere: see n. to I 82 *Indugredi*: these vss. are translated from Emped. 356 Οὐκ ἔστιν πελάσασθ' οὐδ' ὀφθαλμοῖσιν ἐφικτὸν Ἡμετέροις ἢ χερσὶ λαβεῖν ᾗπερ γε μεγίστη Πειθοῦς ἀνθρώποισιν ἁμαξιτὸς εἰς φρένα πίπτει. *via munita*: as III 498 *et sunt munita viai*: it exactly expresses Empedocles' ἁμαξιτός, a regularly paved carriage-road. *fidēi*: Enn. ann. 342 *plenu' fidēi*; see n. to I 688 *rei.* **103** the *pectus*, in which are the *templa mentis*: IV 624 *Umida linguai sudantia templa*: III 140 *Idque situm media regione in pectoris haeret* explains the expression. **104** *dabit fidem*, for which Cicero says *faciet fidem*; and with him *tribuere fidem* = habere fidem, the very converse of this *dare fidem*: but, as Lucr., Ovid fasti II 20 *Nunc quoque dant verbo plurima signa fidem*; Pliny paneg. 74 3 *proinde dabat vocibus nostris fidem apud optimum principem, quod apud malos detrahebat*; Apul. met. IV 9, imitating Lucr., *res ipsa denique fidem sermoni meo dabit*: Ov. ex Ponto IV 8 36 *pro concessa verba salute damus* = facimus. *addere fidem*, for which Cic. has *adiungere fidem*, is common in this sense and further confirms what is said in n. to IV 41. **107** *flect. fort. gub.*: see n. to 77 *flectat natura gubernans.*

110—145: but first let me declare with more than oracular certainty that this world and its parts are not immortal and divine: nay so far from its being impious to say that they are not godlike, they are the most fitting example of what is meant by inanimate and insensible: as we shewed in III, the soul and mind cannot exist away from the body; the world then being without life cannot be divine. **110** here, as Lach. has shewn, the argument is interrupted, and it is again taken up

at 235 *Principio* cet.: 110—234 therefore are, like many other passages, subsequent additions: see what is said at II 165—183, where it is shewn that the subject of these vss. is closely connected with those and touches on questions not treated of elsewhere; and comp. especially V 155 *Quae tibi posterius largo sermone probabo*, a promise never fulfilled. Observe too that while a large proportion of these 125 verses are in the poet's noblest manner, about one-third of them are mere transcriptions of vss. from former books, shewing thereby that they were left by him in a provisional and unfinished state. **111 112** = I 738 739, where they are clearly more in place: here they sound somewhat pompous and inflated. **113** *exp. dictis*: Aen. III 379 and VI 759 *expediam dictis*. *doctis dictis*: see n. to II 987. **116** *Corpore divino* cet.: the whole of this reasoning is doubtless directed mainly against the stoics and their *anima mundi*; comp. the stoic Manil. I 247 foll. quoted by Creech, *Hoc opus...Vis animae divina regit* cet.; and Cic. de nat. II where the stoic Balbus discourses so largely on this head: 43 his conclusion is *sequitur ergo ut ipsa*, i.e. sidera, *sua sponte, suo sensu ac divinitate moveantur*: comp. with this what Lucr. says 78 *Ne forte haec inter caelum terramque reamur Libera sponte sua cursus lustrare perennis*: Balbus continues *nec vero Aristoteles non laudandus in eo quod* cet. the conclusion being *restat igitur ut motus astrorum sit voluntarius. quae qui videat, non indocte solum, verum etiam impie faciat, si deos esse neget.* Aristotle and the peripatetics whose teaching on these points is notorious, are doubtless therefore joined with the stoics by Lucr. and indeed Plato too who had called the stars created gods. **117** *Gigantum* cet.: the stoics who allegorised everything, doubtless gave this turn to the wars of the giants and Titans with the gods: comp. Cic. l. l. 70. **119** *Qui ratione* cet., as the epicureans, who we have just seen declared the world must one day perish, the stoics of course maintaining its immortality. Plut. de fac. lun. 6 says Cleanthes declared that the Greeks ought to prosecute Aristarchus of Samos for sacrilege, ὡς κινοῦντα τοῦ κόσμου τὴν ἑστίαν, because, to make theory accord with phenomena, he taught that the earth turned about its own axis and revolved in an annual orbit. **121** *notantes* i.e. ignominia, like censors or judges. **122** *Quae procul*: Lucr. now takes up the argument: *Quae* cet. = quamvis re vera haec usque adeo cet.: the *Quae* cet. refutes all that precedes from 114 to 121: the subjunctive is as regular, as II 87 *durissima quae sint* cet.; V 316 1357. [*Quae...distent* cet. is really connected with 114—116: *ne rearis...manere,...Quae distent* cet.; 117—121 being clearly parenthetical. For the subjunctive *distent* comp. Caes. b. civ. III 96 1 *ut facile existimari posset nihil eos de eventu eius diei timuisse, qui non...necessarias conquirerent voluptates. at hi.. exercitui Caesaris luxuriem obiciebant, cui semper omnia ad necessarium usum defuissent*; b. Gall. IV 21 9 *Volusenus perspectis regionibus omnibus, quantum ei facultatis dari potuit, qui*

navi egredi ac se barbaris committere non auderet; v 4 3 *magni interesse arbitrabatur eius auctoritatem...valere, cuius tam egregiam in se voluntatem perspexisset. id tulit factum graviter Indutiomarus...et, qui iam ante inimico in nos animo fuisset, multo gravius hoc dolore exarsit*; v 33 2 *at Cotta, qui cogitasset haec posse . . accidere atque . . auctor non fuisset, nulla in re communi saluti deerat.*] 125 *Quid sit* i.e. quale illud sit, quod est. 128—141 with the exception of a word or two at the beginning and end, are the same as III 784—797 where they are clearly more in place than here. 145 *vitaliter* appears to be found only here.

146—194: the gods dwell not in the world, but apart in seats fine as themselves: their nature is not sensible to our bodily sense, but only to the finer sense of the mind: again to say that this world was created by the gods and will be eternal, and that it is impiety to gainsay this, is sheer folly: what could induce them to take such trouble? or what harm were it to us never to have been born? whence did the gods get the notion of man, so as to know how to make him? nay, this world and all in it was gradually formed by mere natural causes, as explained already. 146 foll. on the gods of Epicurus more will have to be said to 1161—1241 where he explains how the vulgar notions about the gods arose: comp. too what has been said at II 646 foll. *Omnis enim per se divom natura* cet. and the authorities there cited. That Epic. and Lucr. believed in these gods is certain, as there observed: no less certain are the difficulties in reconciling that belief with their general system. 147 *in mundi part. ullis*: the gods dwelt in μετακόσμια, which Cicero translates by *intermundia*: see n. to III 18 *sedesque quietae*. 149 *animi mente*: see n. to III 615: Velleius in Cic. de nat. I 48 says *hominis esse specie deos confitendum est. nec tamen ea species corpus est, sed quasi corpus, nec habet sanguinem, sed quasi sanguinem.....Epicurus autem . . docet eam esse vim et naturam deorum ut primum non sensu sed mente cernatur, nec soliditate quadam*: again de div. II 40 we have the adversary's sarcastic description, *deos enim ipsos iocandi causa induxit Epicurus perlucidos et perflabilis et habitantis tamquam inter duos lucos sic inter duos mundos propter metum ruinarum; eosque habere putat eadem membra quae nos, nec usum ullum habere membrorum*: but, as Bentley says in his first Boyle lecture, 'if Epicurus and Democritus were in earnest about their philosophy, they did necessarily and really believe the existence of the gods'. 150 *suffugit*: Aen. II 12 *horret luctuque refūgit*; [x 804 *omnis campis diffugit arator*; geor. I 330 *fugere ferae*;] Hor. epist. II 2 171 *refūgit iurgia*; Sen. Herc. Fur. 1193 *Quid hoc? manus refūgit: hic errat scelus*: in all these cases the context is in the present. 151 *contingere* = tangere. 152 *Tangere* cet.; yet though a finer sort of touch, it is, as he shews in III, material touch by which the mind is affected as well as the body. And granting his pre-

misses, as well as what he next says, that their abodes are as fine as their bodies, their existence as he argues in 1161 foll. is known to us only by the images they send to the minds of men: these images must be much finer than the bodies of the gods which emit them: are these images immortal? if not, why are these gods, which are much finer than men and much grosser than their own images, imperishable? a dilemma surely, as they must be intermediate between things alike perishable: these *intermundia* too, as shewn in n. to III 18, are as numerous as the worlds in space, that is to say are innumerable: why are they all imperishable, while numberless worlds are hourly perishing? why do 'some rambling troops of atoms upon the dissolution of a neighbouring world', to use Bentley's words l. l., never come in contact with them? if by their fineness they elude destruction in this or that place through countless ages, can they do so in countless different places through countless ages? but there is no end to such questions: see the last chapters of Cic. de nat. deor. I.—In Philodemus περὶ εὐσεβείας, we find between tab. 105 and 123 many tantalising fragments which if perfect would doubtless throw much light on the nature of the epicurean gods: thus tab. 121, after stating that all σώματα are τὰ μὲν συνκρίσεις, τὰ δ' ἐξ ὧν αἱ συνκρίσεις πεπόηνται, exactly as do Lucr. in I 483 and Epicurus there quoted, he goes on μήτε γὰρ ἀτόμους νομίζειν τοὺς θεοὺς μήτε συνκρίσεις (συνθέτους?), and 122 ἅπασαν τὴν σύνκρισιν φθαρτήν. Probably therefore they attempted in regard to their gods to explain the inexplicable somewhat for instance as Lucr. I 599—634 comments on the parts of an atom, or II 216—293 on the minimum of declination: the gods were not συγκρίσεις, but quasi συγκρίσεις: their atoms had not come together so as again to be separated; but were in eternal juxta-position, etc. etc.

154 *de*=secundum, 'after the model of,' 'in conformity with': see Lorenz Plaut. most. 760: Menaech. 935 *de illis verbis: cave tibi: Immo Nestor nunc quidemst de verbis, prae ut dudum fuit*; 266 *iam aps te metuo de verbis tuis*; asin. 210 *meo de studio studia erunt vestra omnia*; [miles 1024 *de meis venator verbis*; Epid. 442 *Nam strenuori deterior si praedicat Suas pugnas, de illius illae fiunt sordidae*, where Goetz and others change the text wrongly: see Buecheler Rh. Mus. XXXVII p. 524 n. 1: (Priscian I p. 87 agrees with mss. of Plautus).] Comp. too Apul. met. VIII 8 *Thrasyllus praeceps alioquin et de ipso nomine temerarius*: *de*=de exemplo, de more, etc. as *ad* sometimes=ad exemplum, ad normam: '*tenues* de exemplo corporis eorum'. 155 *Quae tibi* cet.: this promise, as already observed, he has nowhere fulfilled.

156 *Dicere* cet.: again directed against the teleology of stoics and peripatetics: so the epicurean in Cic. de nat. deor. I 23 *an haec, ut fere dicitis, hominum causa a deo constituta sunt?* cet. 158 *Adlaudabile* seems not to occur elsewhere: Ritschl has expelled it from Plaut. Persa 673: *adl.* and *laudare* are designedly brought together. 161 *perp.*

aevo is abl. gov. by *fundatum*: founded on, that is, which is to exist for everlasting: Spartian. Sever. 22 *in aeternum pace fundata*; edict. Dioclet. Maxim. near beg. *ut nos. . in aeternum fundatam quietem saepiamus*; Livy XLV 19 10 *regnum eorum novum, nullis vetustis fundatum opibus*: but it may mean from everlasting, as *tempore infinito* in Cicero quoted to 174; Juv. IX 16 *tempore longo*; [XI 152 *Suspirat longo non visam tempore matrem*; Virg. geor. III 565 *nec longo deinde moranti Tempore*; Ov. ars I 38 *ut longo tempore duret amor*; Mart. I 88 8 *Hic tibi perpetuo tempore vivet honor*; X 36 7 *Non venias quare tam longo tempore Romam, Haec puto causa tibi est*;] Livy XXIV 9 7 *multis enim annis tale consulum par non fuit*; Ov. heroid. XI 107 *Quid puer admisit tam paucis editus horis?*; Plaut. Amph. 91 and Men. 205 *anno* 'a year ago': and often in Caesar: *paucis diebus, quibus eo ventum erat*; *quibus in hiberna ventum est*; *quibus in conspectum adversariorum venerit*; and the like. 163 *ab imo ev.*: Aen. II 625 *et ex imo verti Neptunia Troia*: comp. Livy XLII 20 1 *columna rostrata . . tota ad imum fulmine discussa est*; Hor. epist. I 1 54 *haec Ianus summus ab imo Prodocet*; ars 254 *Primus ad extremum similis sibi*; Ov. ibis 179 *Iugeribusque novem summus qui distat ab imo*; old inscr. ap. Ritschl. ind. lect. aest. 1853 p. IV *Ecce homo non totus, medius sed piscis ab imo*: Lucr. therefore means 'tota ab imo usque ad summa evertere': Hor. sat. II 3 308 *ab imo Ad summum totus moduli bipedalis*, gives the full expression. 165 for rhythm see n. to II 1059. 168 *post ante*: Catull. 4 10 *post phaselus antea fuit*; inscr. Lat. I 1009 17 *Et antecessi genita post.* *quietos*: VI 73 *placida cum pace quietos*: Aen. IV 379 *ea cura quietos Sollicitat*: Velleius in Cic. de nat. deor. I 21 *ab utroque autem sciscitor cur mundi aedificatores repente exstiterint, innumerabilia saecla dormierint.* 174 *An, credo, in tenebris* cet.: so Velleius l. l. 22 *si ut deus ipse melius habitaret; antea videlicet tempore infinito in tenebris tamquam in gurgustio habitaverat.* *vita* is of course the life of the gods: Aen. II 92 *vitam in tenebris luctuque trahebam.* Lamb. seeing that 174 175 clearly referred to the gods, placed them before 176 (174) which as clearly refers to men: I now follow him, not Lach., as the *Nam* of 170 has immediate reference to the two prec. vss. Lach. reads *At* for *An* and wonders that so good a scholar as Lamb. should have tolerated *an, credo* in Lucr., when in Serv. Sulpicius' letter ap. Cic. ad fam. IV 5 3 he read *at, credo* for *an, c.* But his wonder would have ceased had he referred to Lambinus' omissa ex annot. p. 505 a: 'immo a Manutio dissentio et codices antiquos sequor omnesque vulgatos, qui habent *an illius vicem, credo, doles*? est enim ironia, atque ita saepe loquebantur veteres. Lucr. l. 5 *An, credo* cet.' Perhaps Lamb. is right in holding that the one passage supports the other; but I cannot help thinking with Lach. that *an credo* is a solecism. Yet in both passages *an* seems eminently in place, taking up and qualifying preceding questions; and in Sulpicius' mouth irony would have

ill suited the occasion, the death of Tullia. Sulpicius perhaps wrote 'an illius vicem, Cicero, doles', the *do* of *doles* getting attached to an abbreviation of Cicero. For *credo* in Lucr. I suggest *crepera*: if CREPERA became CREPA or CRERA, it would pass into *credo* as readily as in V 782 *crerint* has been supplanted in mss. by *credunt*: *crepera* well suits the metaphor of the next v. and we find in V 1296 *creperi certamina belli*: the phrase *in re crepera* is common in the old writers; and Varro in his Mysteria has 'prisca horrida Silent oracla crepera in nemoribus'. Comp. too Lucil. in Nonius p. 13 'Sannunt (*mss.*, Nam tu *Lach.*, Set nunc *Muell.*: ? Sin nunc) solu' mihi in magno maerore Tristitia in summa, crepera re, inventu saluti's': for in our passage, and VI 1183 *Perturbata animi mens in maerore metuque*, and III 903 *Dissoluant animi magno se angore metuque*, Lucr. may have had in mind Lucilius, whose first v. may well be completed by *iacenti* or else *metuque*. **177** see n. to III 843. **178** *blanda voluptas*: so II 966, IV 1263. **179** comp. Cic. Tusc. I 93 *nondum gustaverat, inquit, vitae suavitatem.* **180** *in numero*, vitae i.e. viventium. **182** by *ipsa Notities hominum* Lucr. clearly means to express Epicurus' πρόληψις: thus Velleius I. I. 43 in proving the existence of gods from this πρόληψις of gods in the minds of all nations says *solus enim vidit* (Epicurus) *primum esse deos quod in omnium animis eorum notionem impressisset ipsa natura. quae est enim gens aut quod genus hominum quod non habeat sine doctrina anticipationem quandam deorum? quam appellat πρόληψιν Epicurus, id est anteceptam animo rei quandam informationem, sine qua nec intellegi quicquam nec quaeri nec disputari potest*, and 44 *hanc nos habere sive anticipationem, ut ante dixi, sive praenotionem deorum, (sunt enim rebus novis nova ponenda nomina, ut Epicurus ipse πρόληψιν appellavit, quam antea nemo eo verbo nominarat): hanc igitur habemus* cet. There is a better definition in Diog. X 33: 'preconception (πρόληψιν) they define to be a comprehension so to speak or a right opinion or thought or general notion laid up, that is to say a recollection of what has repeatedly appeared from without': and comp. what follows, ἅμα γὰρ τῷ ῥηθῆναι 'ἄνθρωπος' εὐθὺς κατὰ πρόληψιν καὶ ὁ τύπος αὐτοῦ νοεῖται προηγουμένων τῶν αἰσθήσεων. What *exemplum* then had the gods, Lucr. asks, by which they first got this πρόληψις ἀνθρώπων? like a poet, he chooses a simple word in common use, *notities*; just as above and in III he terms the *intermundia* only *sedes*, defining them by various additions. **183** *Quid* cet.: 1049 *Quid vellet facere ut sciret animoque videret.* **186** *ipsa dedit* cet.: 1361 *At specimen sationis . . Ipsa dedit rerum primum natura creatrix.* **187—191** are repeated from 422—426, 192—194 from I 1026 1027, with some changes: another proof of the unfinished state in which these added sections were left; for besides that they are mere repetitions, these last nine vss. are clearly far less to the purpose here than they are in their original places, where they follow as a natural consequence from what

has preceded: here they are mere assertion, not connected in argument with what goes before: even in their other positions they are much copied one from the other. 192 *in talis disp. Dec. quoque*: *quoque* clearly belongs in strictness to *talis*, as that is the word which it brings out in contrast with what precedes: comp. II 581 *Illud in his obsignatum quoque rebus habere Convenit* i.e. Illud quoque cet.; 216 *Illud in his quoque te rebus cognoscere*; 281; III 638; V 344; VI 317; 474; 481; 577; 905. 193 *meatus* i.e. paths in which their motions go on: it is almost the same then as his more usual *motus*.

195—234: nay, if I did not know the first-beginnings of things, the imperfection of this world would prove to me the gods did not make it for man's use: see after all how small a part of the whole earth he can bring under tillage, and that with the sweat of his brow; and then his labour is often thrown away: look at all the miseries he suffers, dangers by sea and land, diseases, untimely death: compare the helpless baby with the young of other animals. 195—199 are the same as II 177—181 with very slight changes; see notes there: at II 167 it is said that the stoics are here chiefly aimed at with their teleology; see too Cicero quoted at V 156 *Dicere porro hominum causa* cet. of which this is a refutation. 195 *si iam*: see n. to I 968; and comp. Celsus prooem. p. 6 33 Daremb. *quod si iam incidat mali genus aliquod ignotum.* 198 *nobis* i.e. for our especial service, as 156 *hominum causa*: he goes on to shew how much worse in many respects the condition of man is than that of brute beasts. 200 *impetus*: see n. to IV 416 where it is said that *impetus* seems to denote here only size; though Lucr. is ready to allow the revolution of the heavens; 1436 *mundi magnum versatile templum*: yet Cic. de nat. II 97 says *cum autem impetum caeli cum admirabili celeritate moveri vertique videmus*; and Ov. met. II 79 *adsidua rapitur vertigine caelum...nec me, qui cetera, vincit Impetus, et rapido contrarius evehor orbi.* 201 *silv. fer.*: see n. to 369. 202 the rhythm of this v. was compared above with Virg. geor. II 144 *Implevere: tenent oleae armentaque laeta*; comp. too VI 1140 *Vastavitque vias, exhausit civibus urbem* with geor. III 481 *Corrupitque lacus, infecit pabula tabo*, where all that precedes and follows shews constant imitation of what precedes and follows in Lucr. 204 *duas partis*, τὰ δύο μέρη. 205 *geli casus*: as a poet he makes frost like dew come down from the sky. *geli*: VI 156 *geli fragor*; 530 *vis magna geli*: and 877 even the acc. *gelum, quod*: genitives in *i* of words usually of the fourth decl. are common in the old writers, *senati ornati soniti exerciti* and the like: see Neue I p. 362—364. 207 *sent. obd.*: Virg. geor. II 411 *densis obducunt sentibus.* *ni vis hum.*: ib. I 198 *ni vis humana quotannis* cet.: 208 209: ib. 45 *Depresso incipiat iam tum mihi taurus aratro Ingemere*, II 237 *validis terram proscinde iuvencis*: comp. too *duros iactare bidentis Aut presso exercere solum sub vomere*; and Tib. II 3 6 *Versarem valido*

pingue bidente solum: the *bidens* being a heavy two-pronged hoe. 210 211 = I 211 212, except *Si non* for *Quae nos*: the subject therefore of *nequeant*, or an object to *cimus* must be taken somewhat harshly out of the following clause, *quaesita*, *omnia*. 212 *Sponte* cet.: Virg. geor. II 47 *Sponte sua quae se tollunt in luminis oras*, which at the same time imitates 781 *quid primum in luminis oras Tollere*. *nequeant*: see n. to II 922. 213 *mag. quaes. lab.*: ib. I 197 *multo spectata labore*: Macrob. compares with 213—217 Virg. geor. I 118 *Nec tamen*, *haec* cet. where the turn of phrase is like. 218 *genus horriferum* cet.: Cic. acad. pr. II 120 *cur deus, omnia nostra causa cum faceret, sic enim vultis, tantam vim natricum viperarumque fecerit? cur tam multa pestifera terra marique disperserit?* 221 [*quare*: Madv. gramm. 492 b. anmerk. 2 'eine directe Frage...wird durch *cur* bezeichnet; *quare* wird nur in abhängigen Sätzen gebraucht': but see Naegler 'de partic. usu ap. L. An. Senecam' Jahresbericht I p. 200, where he shows that *quare* is often used by Seneca as here.] *vagatur*: comp. Rabirius (?) fragm. in volum. Hercul. II col. 5 *Omne vagabatur leti genus, omne timoris*. Would not the very next lines tend to shew that untimely death was rather a blessing? his inconsistency indeed is well rebuked by his master in Diog. X 126 πολὺ δὲ χεῖρον καὶ ὁ λέγων, κάλλιστον μὲν μὴ φῦναι, φύντα δ' ὅπως ὤκιστα πύλας ἀίδαο περῆσαι· εἰ μὲν γὰρ πεποιθὼς τοῦτο φησί, πῶς οὐκ ἀπέρχεται ἐκ τοῦ ζῆν; 222 *proiectus*: the regular term for a castaway. 223 *indigus* seems elsewhere to govern the gen. but the verb sometimes takes the abl. in the best writers. 225 *Nixibus*: Virg. geor. IV 199 *aut fetus nixibus edunt*: Wak. compares Serenus Samon. 1038 *Nudum hominem primum mater natura profudit*. 226 *Vagituque* cet.: St Austin changes to bitter earnest the bitter irony of the epicurean's *ut aecumst*: he says, enarrat. in psalm. 125 10, *poterat ridere prius puer qui nascitur: quare a fletu incipit vivere? ridere nondum novit, quare plorare iam novit? quia coepit ire in istam vitam*; Lear IV 6 carries the 'pathetic fallacy' a step farther and makes the baby cry, not for his own misery, but his neighbours' folly: *Thou know'st, the first time that we smell the air, We wawl and cry...When we are born, we cry that we are come To this great stage of fools*; [comp. G. Herbert's Jacula Prudentium: *I wept when I was born, and every day shews why*;] Pliny VII at beg. takes, as is his wont, the same dismal view: thus 2 *hominem tantum nudum et in nuda humo natali die abicit ad vagitus statim et ploratum, nullumque tot animalium aliud ad lacrimas et has protinus vitae principio*, and so on; St Bernard de pass. dom. is like Lucr.: *primam vocem plorationis edimus, merito quidem utpote vallem plorationis ingressi*: Apuleius and Lactantius both copy Lucretius' words. Marullus in marg. cod. Victor. writes λαμπρόν: in some vss. quoted in vol. I p. 7 he at once imitates and refutes Lucr. 227 *restet transire*:

see n. to I 1005 *restet minus ire.* 228 *At variae* cet. so that instead of things being made *hominum causa* above all, they are less favoured than other creatures, to whom nature is far more bountiful. 233 *Qui* = quibus: IV 615 *qui sentimus sucum, lingua atque palatum*; Plaut. capt. 1003 *aut coturnices dantur quicum lusitent*; aulul. 498 *vehicla qui vehar*: [Amph. 257, and Ussing there;] Ter. Andr. 511 *multa concurrunt simul, Qui coniecturam hanc nunc facio*: Apul. met. VI 7 *indicia qui possit agnosci*: I 700 *qui* = quo. 234 *daedala rerum*: see n. to I 7 *daedala tellus*, and for constr. IV 551 *verborum daedala.*

235—246: first then, since earth water air fire are all mortal, the world of which these are the parts should be deemed mortal: the world then had a beginning and will have an end. 235 *Principio*, as was said above, has no connexion whatever with what immediately precedes, but joins on to 109, 110—234 being a subsequent addition of the poet's, as explained in n. to 110 foll. *terrai corpus*, a favourite periphrasis, as *corpus aquae*, *aquai*, *Neptuni* and the like. 236 *animae*: see n. to I 715: the adject. *animalis* has the same sense in Cic. de nat. III 34. *cal. vap.*: see n. to II 844. 239 *eodem* i.e. corpore constare *putari.* 244 *regigni*, and 269 *remanat* in this sense at least, seem not to be found elsewhere. 245 *quoque item*: see n. to III 208 *quoque etiam.* 246 *Principialis* too is a Lucretian word: II 423 *principiali levore* is smoothness of first-beginnings.

247—260: think not I am begging the question in asserting that earth water air and fire are mortal: first as to earth: some of it you see passes away in clouds of dust; some is carried away by floods or rivers eating their banks: again what feeds other things, is usually replenished in return; and since earth, mother of all things, is also their tomb, the earth wastes and grows again.—In this and the next three paragraphs he shews in turn that earth water air and fire all decay. 247 *corripuisse mihi*: Lach. cites Varro de ling. Lat. VII 94 *rapere, id est corripere*: συναρπάζειν τὸ ζητούμενον is a very common phrase in Sextus; pyrrh. hyp. I 90 he says πρὶν ἄρξασθαι τῆς κρίσεως τὰ φαινόμενα συναρπάζουσιν, ἑαυτοῖς τὴν κρίσιν ἐπιτρέποντες: *arripere* is used by Cicero in a like sense. 249 *neque dubit.* with an infin. in the sense of 'to doubt' is rare in the older writers: Nepos however opens his work with *non dubito fore plerosque, Attice*; and in him it is common; it occurs too in young Cicero's letter to Tiro: I find frequent instances in Tacitus and the younger Pliny: the elder in his praef. 18 writes *nec dubitamus multa esse*: [and Livy XXII 55 2 has *neque enim dubitabant...hostem...venturum*: see Fabri there.] 250 *rursus* belongs also to *gigni.* 251 *Principio*, to begin with earth. *perusta Sol. ads.*: Wak. compares Ovid her. V 110 *adsiduis solibus usta* and Hor. epod. 2 41 *perusta solibus.* 253 comp. Virg. geor. II 217 *Quae tenuem exhalat nebulam fumosque volucris*: Lucr. again 463 *Exhalantque lacus nebulam* cet. 255 *ad. dil. rev.*: VI 292

Atque ita praecipitans ad diluviem revocari: Cicero thus uses *rem revocare ad* and the like, for *adducere*, where the *re* has no force; as pro Cluent. 136 *cum rem paene ad manus revocasset*: comp. the use of *redeo* in n. to 1141 *res redibat*. 258 *Redditur* both Wak. and Lach. explain by 'restituitur, retribuitur, recreatur', and the word can have here no other meaning; though I can bring no parallel instance: 322 *quodcumque aliis ex se res auget alitque, Deminui debet, recreari, cum recipit res*; and *redditur* therefore seems= reficitur, *do* again having the force of *facio*. 259 *Omniparens* cet.: Varro de ling. Lat. v 64 *haec enim* Terris genteis omnis peperit et resumit denuo...*ut ait Ennius*; Orell. inscr. 4417 *mater genuit, mater recepit*; Romeo and Juliet II 3 *The earth that's nature's mother is her tomb: What is her burying grave, that is her womb*: Ἐκ γαίης γὰρ πάντα καὶ εἰς γῆν πάντα τελευτᾷ is assigned to Xenophanes by Stobaeus and others; Eurip. Antiop. fr. 195 Nauck ἅπαντα τίκτει χθὼν πάλιν τε λαμβάνει. *com. sep.*: Catull. 68 89 *Troia, nefas, commune sepulcrum Asiae Europaeque*. 260 and 294 *tibi*: see n. to I 797.

261—272: the same is true of water: fresh supplies are constantly coming to seas and rivers; but the sum remains the same, because as much is taken away by the winds and the sun, and by filtering through the ground, whence the water finds its way back to the river-heads. 263 *Nil opus est verbis* i.e. declarare, understood from *declarat*. *mag. dec. aqu.*: 946 *montibus e magnis decursus aquai*; I 283 *magnus decursus aquai*; VI 609 *tantus decursus aquarum*. 264, 284 and 304 *quicquid*=quicque: see n. to II 957. *primum quicquid*: see n. to I 389 *primum quemque*. 266 *verrentes—sol* recurs 388 389: VI 623 *venti... verrentes aequora*. 267 *Diminuunt* should probably be *Dem.*: see n. to 323. 269—272 recur with slight difference VI 635—638. 269 foll. see II 474—477, and Sen. nat. quaest. III 5. 271 *agmine* is thus used by Ennius before and Virgil after him; Enn. ann. 177 *Quod per amoenam urbem leni fluit agmine flumen*; so par. lost VII 305 *where rivers now Stream and perpetual draw their humid train*, and what precedes illustrates Lucr. 272 *pede* cet.: Hor. epod. 16 48 *Levis crepante lympha desilit pede*; culex 17 *Castaliaeque sonans liquido pede labitur unda*; Silius VI 140 *lento pede sulcat harenas Bagrada*.

273—280: the air too is ever changing; for whatever streams off from things, must pass into air; and thus unless the air gave back as much, all things would become air. 276 *Aeris...mare*: Wak. quotes Ennius trag. 6 *omnem pervolat caeli fretum*: [and so Shakesp. Timon IV 2 21 *we must all part Into this sea of air.*] *qui nisi retribuat recreetque, Omnia iam resoluta forent* is the sole instance in Lucr. of such a constr.: Virg. geor. IV 116 *ni...traham et..festinem,...canerem*; Tib. I 4 63 *ni sint,..non nituisset*; 8 22 *faceret, si non aera repulsa sonent*; Catull. 6 2 *Ni sint..Velles dicere nec tacere posses*; Sen. Herc. Oet. 1385 *Non, si..ruat..flagret,..domaret*; Mart. V 20 1 *Si..liceat..,nosse-*

mus . . essent; [Plaut. aulul. 515 *Compellarem* (so mss.) *ego illum, ni metuam ne desinat*; miles 1348 *Et si ita sententia esset, tibi servire mavelim*: see Autenrieth die conj. *quom* p. 298, whence it appears that the present is common in old Latin where the imperfect is usual in later.] 280 *Reccidere*: see n. to I 228.

281—305: and so it is with fire too; the sun continually sends out new light, as you may see when clouds intercept it; the light beneath the clouds at once disappears; and thus it is with lights on earth; lamps and the like are constantly sending forth fresh lights, so that the destruction of the old is concealed by the instantaneous production of the new: the same is the case with sun moon and stars. 281 *fons lum.*: 293 *lucis caput ipsum*; par. lost VII 364 *Hither as to their fountain other stars Repairing in their golden urns draw light.* 282 *Inrigat*: IV 203 of the sunlight *caelumque rigare*, V 594 *caelumque rigando Compleat*; Emped. 127 καὶ ἀργέτι δεύεται αὐγῇ; Pindar ol. VI 55 boldly but beautifully Ἴων ξανθαῖσι καὶ παμπορφύροις ἀκτῖσι βεβρεγμένος ἁβρὸν Σῶμα. 291 *primum iac. ful. quemque*: see n. to I 389. 294 *terrestria*: II 386 *ignis Noster hic e lignis ortus taedaque creatus* is opposed to the *caelestem fulminis ignem.* 295 *pend. lychini*, metal lamps suspended from the ceiling: Macrob. sat. VI 4 17 compares with Lucr. Aen. I 726 *dependent lychni laquearibus aureis*, as well as Ennius and Lucilius. 298 *instant, Instant*: see n. to II 955 *vincere saepe, Vincere*; and comp. Cic. Arat. prog. quoted de div. I 14 *Et matutinis acredula vocibus instat, Vocibus instat et adsiduas iacit ore querellas*, which Lucr. seems to have had in his mind. 300 the constr. as so often in Lucr. is somewhat involved: exitium adeo properanter celatur ei luci celeri flammae origine ab omnibus ignibus: *om. ig.* because however many the *lychni* or *taedae* are, they all alike incessantly ray out brightness, so that the whole light remains uninterrupted: Bruno (Harburg 1872) well illustrates the dat. *ei* by I 898; 252; II 442. 303 *subortu* seems not to occur elsewhere, at least in this sense: the verb *suboriri* he thrice uses with the same force, that of rising up to supply what is wanting.

306—317: again the hardest things, stones metals and the like are broken up by time: they had a beginning then; else they would not give way after enduring from everlasting. 308 *fessa fatisci* occurred III 458. 309 *protollere* to advance and so defer: Plautus uses it both in its literal sense *protollere manum*, and in its metaphorical *protollo mortem mihi*; Lucr. blends the two. 313 Polle, Jahn's Jahrb. vol. 93 p. 756, argues with justice that no correction ought to neglect the proper force of *proporro*: this word, peculiar to Lucr., is found also in II 979, III 275 281, IV 890, and probably in II 137: it always means 'then further in turn' or the like: our passage then seems to contain one of those sarcasms so common in Lucr. as II 979 where the *primordia* are supposed to enquire about their own *primordia*, and I 919 where they

are supposed to laugh and cry. My correction then seems simple enough, as *sēnĕ* would almost infallibly fall out before *senescere*: *cumque* is then a senseless interpolation to fill up the verse: so in Hor. od. I 32 15 *cumque* is a mere insertion, the genuine word *amica* or *fausta* having fallen out. I cannot accept Lachmann's much praised *medicumque*; for *mihi* is called for by the whole tenor of the context, and *rite vocanti* requires such a word as *fausta* or *amica*: possibly too in Lucr. II 114 *cumque* is an interpolation. [I see that Autenrieth die conj. *quom* p. 285 c defends *cumque* in Horace, but I doubt it: see too what he says of Lucretius.] The poet, observing what he would deem the many foolish inscriptions on these *monimenta*, as in inscr. Lat. I 1220 *Tu qui secura spatiarus* (sic) *mente viator,...Si quaeris quae sim* cet., sarcastically represents them as now asking sympathy for themselves: comp. Auson. epigr. 35 9 *Miremur periisse homines? monimenta fatiscunt: Mors etiam saxis nominibusque venit*; Juv. X 146 *Quandoquidem data sunt ipsis quoque fata sepulcris*; Mart. X 2 9—12. **314** *perferre patique*: see n. to II 291 *ferre patique*. **316** *pertolerassent* seems not to be found elsewhere. **317** *fragore*: see n. to I 747 *fragori*: the metaphor is from battering the walls of a fortress.

318—323: if as some say the all-environing ether begets all things and takes them back at death, then must it be mortal; for it is thus subject to increase and decrease.—This passage is an argumentum ad hominem: the notion pleases his poetical fancy, and he has already more than once seized on the thought and given to it an epicurean turn; see what has been said at I 250, and especially II 991 foll. which has much resemblance to this, *caelesti sumus omnes semine oriundi*, and 1000 *quod missumst ex aetheris oris* cet.: the consciousness of this prevents him from giving a denial to the theory here; and he contents himself with leaving it as hypothetical: *si procreat* cet. in which there is doubtless irony mixed. The passage is a paraphrase of Pacuvius 86 *Hoc vide, circum supraque quod complexu continet Terram...Id quod nostri caelum memorant, Grai perhibent aethera: Quidquid est hoc, omnia animat format alit auget creat Sepelit recipitque in sese omnia, omniumque idem est pater, Indidemque eadem aeque oriuntur de integro atque eodem occidunt.* **320** *quidam* therefore are Pacuvius and whoever they are whom he follows, be they stoics or scholars of Plato or Pythagoras or Anaxagoras or whoever else chooses to allegorise in a like spirit. Pacuvius himself was probably thinking of Zeno: he says 93 *Mater est terra: ea parit corpus, animam aether adiugat.* **323** *Deminui, recreari*, and thereby to be mortal: III 517 *At neque transferri sibi partis nec tribui vult Inmortale quod est quicquam neque defluere hilum; Nam* cet.: A has *deminui*, B *diminui*: 266 both have *diminuunt*; 389 both *deminuunt*; I 613 both *deminui*: so that probably in all places Lucr. wrote *dem.*: see Wagner aulul. 163; for I believe him to be right in

saying that *diminuo* or *dimminuo* is quite distinct from *deminuo*, the former being used in phrases like *dim. caput*, *cerebrum*: he well compares *describere* and *discr.*, *despicere* and *disp.*

324—350: if the world had no beginning, why did history commence with the wars of Thebes and Troy? nay the world began but lately; and so arts and sciences are still in progress: if it be said all these existed before, but were destroyed by some great catastrophe, then you must the more admit that the world will come to an end: when it suffered so grievously, had the causes been more powerful, it must have perished altogether; thus we all know we shall die, because we have the same diseases as those who are already dead. 326 *fun. Tro.*: Hor. od. I 8 14 *sub lacrimosa Troiae Funera.* 330 *summa*: as he is speaking of our *mundus*, *summa* is here *haec summa* or *haec rerum summa*: see n. to I 1008. 331 *exordia cepit*: I 149 *Principium cuius hinc nobis exordia sumet*; where see note: Virg. geor. IV 316 *Unde nova ingressus hominum experientia cepit?* 334 *organici* cet.: II 412 *musaea mele*, *per chordas organici quae...figurant.* 336 *cum primis* merely strengthens *primus*, first of all, before all others: VI 225 *subtilem cum primis ignibus ignem*: from Cic. Tusc. IV 6 it would appear that before him Amafinius had written popular epicurean treatises in prose. 340 *vexamine* seems not to occur elsewhere: see n. to I 434. 342 *cooperuisse*: VI 491 the mss. have more correctly *Coperiant*; VI 1068 *colescere*: comp. I 977 *probeat*, and n. there. 343 *Tanto quique magis*: see n. to III 700: the argument for the final destruction of the world is stronger than the one for its having had a beginning; because if it be liable to such terrible diseases, one of these must some day be mortal according to all analogy. 346 *incubuisset*: so VI 1143 of the plague *Incubuit tandem populo* cet.; Hor. od. I 3 30 *macies et nova febrium Terris incubuit cohors.* 349 *Inter nos*, one with the other, taken all in all.—Macrobius' comm. in somn. Scip. II 10 is worth comparing with the above paragraph.

351—379: again that which is everlasting must either be impenetrable like atoms, or intangible like void, or must have nothing without it into which it can pass or out of which destructive forces can come; and this is the case with the universe: but we have shewn that not one of these conditions is true of our world; it is therefore doomed to destruction; and therefore it had a beginning too; for being mortal, it could not have lasted from eternity. 351 *necessust*: see n. to II 710: VI 815 he has *necessis*, gen. of *necesse.* 352 and 364 *solido cum corpore*: see n. to I 755. *respuere ictus*: II 448 *ictus contemnere*: Pliny XXXVII 57 of diamonds, *respuentes ictus.* 359 *fit copia*: 371 *Deficit* is the opposite to this: Lach. compares VI 829 *magna mali fit copia circum*; and Enn. ann. 437 *Nec respirandi fit copia.* 361 *sum. summa* cet.: II 303 *Nec rerum summam commutare ulla potest vis. Nam neque, quo*

possit genus ullum materiai Effugere ex omni, quicquam est extra, neque in omne Unde coorta queat nova vis inrumpere et omnem Naturam rerum mutare et vertere motus; and see n. to I 1008 *rerum summam*; for *summarum summa* is here the same; and the sum of sums is opposed to 368 *hanc rerum summam* or this *mundus* of ours; and is the same as *summam summai totius omnem* and like expressions: the phrase occurs with a different sense in Plautus, Seneca and Pliny. 362 *Qui* = aliqui: you would expect *ullus* (or *quisquam*), just as in 359 *nulla loci fit copia*; and in the passage cited to the prec. v. we have *neque quicquam*; and I 1077 *Nec quisquam locus est* cet.: *aliquis* is sometimes used in the same way: Cic. de orat. I 14 *qui neque exercitationis ullam viam neque aliquod praeceptum artis esse arbitrarentur*; pro Sest. 32; and Caes. bell. civ. III 73 3 *sine aliquo vulnere* = precisely *sine ullo vulnere* of II 9 8: but *qui* here hardly differs from Cic. ad Att. V 11 5 *nec mehercule habeo quod adhuc quem accusem meorum*; for Cic. is speaking quite generally. [We have exactly the same use of *qui* in bell. Alex. 9 1 *neve quam partem nocturni temporis intermittant*; Caes. b. Gall. IV 13 4 *ne quem diem pugnae praetermitteret, opportunissima res accidit*; V 57 1 *ne quam occasionem rei bene gerendae dimitteret.*] 364 *docui*, I 329 foll. 368 *Corruere*: the active is rare in this sense; Catull. 68 51 *mihi quam dederit duplex Amathusia curam Scitis et in quo me corruerit genere*; Apul. met. VIII 8 *Charite . . corruit corpus.* 369 *cladem pericli* is a rare form of expression: comp. 201 *silvaeque ferarum*: 1193 *murmura magna minarum*: *pericli* here and *minarum* there seem to have the force of an epithet; to be in fact genitives of quality, something like 764 *coni umbras*; III 42 *Tartara leti*: see n. there: [Virg. ecl. 4 24 *fallax herba veneni*;] Juv. III 4 *gratum litus amoeni Secessus*; V 47 *calicem nasorum quattuor*; comp. too Catull. 23 11 *Non casus alios periculorum*; and with whole verse VI 657 *Aut alium quemvis morbi per membra dolorem.* 373 *leti* cet.: Ov. met. I 662 *praeclusaque ianua leti.* 375 *patet immani* i.e. hiatu *et respectat vasto hiatu*: Aen. VI 237 *vastoque immanis hiatu.* 379 recurs 1217.

380—415: again since its chief members contend in such furious civil strife, the world may perish either when fire has overcome water, or water fire: thus, as poets fable, fire once was near conquering when Phaeton was run away with by the horses of the sun: this story may represent some real event; as may the flood of Deucalion some temporary victory of water. 381 *pio neq.* i.e. civil war: Aen. VI 612 *quique arma secuti Impia*: Livy I 32 12, in an old formula, *puro pioque duello quaerendas censeo*: such civil war cannot be. 383 *vel cum* cet. should be answered by another *vel*: but the poet gives a different turn to the expression at 386 and never completes the construction: the best Latin and Greek writers have like instances: Cic. ad Att. I 16 11 *nam et illud nobis non obest* cet.: he then, after a long parenthesis, changes the constr.;

de orat. II 48; de imp. Cn. Pomp. 17: Sen. Herc. Fur. 1285 *Aut omne* cet. with nothing to answer *aut*: comp. III 425 *Principio quoniam*, 434 *Nunc igitur quoniam*, and note there: equally slight changes of constr. are VI 105 *Nam cadere aut* cet.; 302 *Dum venit, amittens...Atque ...portat*: in these two places Lach. unskilfully changes the reading. Cicero has a hundred such, many of them harsher than any in Lucr.: de fin. II 115 *sed lustremus animo non has maximas artes...sed quaero* cet. 386 *Tantum* is the accus. after *suppeditant*. 387 *diluviare* seems to be found only here. 388 389 occurred above 266 267 with slight difference. 392 *spirantes bellum*: Cic. ad Att. XV 11 1 *fortibus sane oculis Cassius, Martem spirare diceres*; ad Q. frat. III 4 6 *in primisque* Ἄρη πνέων *Q. Scaevola*; Petron. sat. 122 *Civiles acies iam tum spirare putares*. 392 393 obs. *certamine, cernere certant*. 393 *Magnis* cet.: Enn. ann. 544 *Olli cernebant magnis de rebus agentes*; trag. 206 *cernunt de victoria*. 394 foll. though they generally contend on equal terms, yet each has once been victorious. *superantior* seems a ἅπαξ λεγόμ.: see n. to IV 961 *divisior, distractior*. 396 *superāt* is the perf.; see n. to I 70 *Inritat animi* and III 1042 *obit*. 397 *Avia*: Ovid met. II 167 *ruunt tritumque relinquunt Quadriiugi spatium*, 205 *rapiuntque per avia currum*. 399 *At pater omnipotens* both in Aen. VI 592 and Ovid met. II 304 begins the description of Jupiter striking a man with lightning; in Ovid it is, as here, Phaethon: Aen. VII 770 and Ov. met. I 154 *Tum pater omnipotens* in like manner introduces the account of his striking down something with his thunder. 400 *Mag. Ph.*: Ov. met. II 111 *magnanimus Phaethon*. *repenti*: there seems to be no other example of this adj. except in the form *repens*. 402 *aeternam*: he is here speaking as a poet; *ut veteres Graium cecinere poetae*. [*succepit*: for difference between *susc.* and *succ.* see Nettleship, Journal of philol. vol. V p. 80.] *lampada*: 610 *rosea sol lampade*; VI 1198 *nona lampade* i.e. die: used in the same way by Virgil and others. 403 comp. Ov. l. l. 398 *Colligit amentes et adhuc terrore paventes Phoebus equos*: *Colligit* expresses *redegit*. 404 *suum*: not referring to the subject of the sentence: a usage common in the best writers, Cicero Livy Sallust etc.: Ovid seems sometimes very licentious on this point; as fasti II 678 *Clamato tuus est hic ager, ille suus*, i.e. Iovis; or IV 459 *Ut vitulo mugit sua mater ab ubere rapto*, *sua* referring to the abl. abs. 405 *ut veteres* cet.: II 600 *veteres Graium docti cecinere poetae*; Cic. Arat. 33 *ut veteres statuere poetae*: of the passage in II, which the v. quoted introduces, Grote hist. of Greece I p. 33 n. 3 says 'the fine description given by Lucr. of the Phrygian worship is much enfeebled by his unsatisfactory allegorizing': but this moralising is the very condition of the existence of such passages as that one and the present; he would not and could not otherwise have written them; and to my mind it is extremely interesting to see his intense love of these seductive fancies

and the struggle between his instinct as a poet and his philosophical principles. 409 *revictae* = perhaps *victae*; as I 592 *primordia rerum... aliqua ratione revicta*; but the *re* may here have its proper force: comp. Hor. od. IV 4 23 *victrices catervae, Consiliis iuvenis revictae.* 410 *Aut* 'or else': 1026 *Aut genus humanum iam tum foret omne peremptum*; Ov. met. X 52; trist. I 8 45; Cic. ad Att. II 1 3 *aut ne poposcisses*; XVI 11 7; Livy XLII 42 9; Sen. de benef. II 31 2; epist. 92 16; Pliny II 179, where I think Detlefsen wrong in reading *ita ut* for *aut* of mss.: [comp. too Mart. XI 1 6 *Nec Musis vacat, aut suis vacaret.*] *exustae torr. auris*: Pacuvius 13 *Flammeo vapore torrens terrae fetum exusserit*: Lach. strangely says of this v. as rightly read in the mss. 'ita autem ignem *superare posse*, ut numquam revincatur, Epicurus negat'; when Lucr. says at the beginning of this very passage 382 *Nonne vides aliquam longi certaminis ollis Posse dari finem? vel cum sol* cet.

416—431: I will now describe how the various parts of the world were formed: as we said above, it was not by design that atoms framed it; but after many fruitless collisions, they chanced to fall into such motions as produced the world and all that is in it. 416 *ille* is emphatic, as II 362. 419—431, except only 427, are all found elsewhere: 419—422 *Nam—modis multis* = I 1021—1024: 422—426 *multa modis—creare* = V 187—191: 428 = I 1026: 429—431 = with slight difference II 1061—1063: we meet again here what we have met already in this and former books: this passage which is the preface to one of the grandest parts of the poem is itself ill-constructed and patched up from various sources, shewing once more that the poem was left by its author in an unfinished state and that he had carefully worked up some portions, though he had not yet properly connected them with the rest of the poem. 422 foll. comp. the epicurean passage, taken perhaps from Epicurus himself, in Plut. de plac. phil. I 4 τῶν ἀτόμων σωμάτων ἀπρονόητον καὶ τυχαίαν ἐχόντων τὴν κίνησιν συνεχῶς τε καὶ τάχιστα κινουμένων εἰς τὸ αὐτό, πολλὰ σώματα συνηθροίσθη καὶ διὰ τοῦτο ποικιλίαν ἔχοντα καὶ σχημάτων καὶ μεγεθῶν. 423 *plagis Ponderibusque*, by the joint action of which, as so fully shewn in II, the first-beginnings are able to come into collision and union. 430 *saepe*: in II *semper*: both are equally appropriate; *saepe* = on many other occasions and also at the foundation of our world, *Terrai maris* cet.

432—448: then could be seen nothing that now is seen, sun stars earth sea or heaven, but a strange chaotic jumble of atoms unable to combine: gradually the different parts of the world began to separate. 432 foll. comp. Emped. 72 Ἔνθ' οὐδ' ἠελίοιο δεδίσκεται (?) ἀγλαὸν εἶδος Οὐδὲ μὲν οὐδ' αἴης λάσιον δέμας οὐδὲ θάλασσα. 432 *solis rota*: 564 *Nec nimio solis maior rota nec minor ardor Esse potest* shews the *rota* to be the *orbis*: many of the poets, beginning with Enn. ann. 548 *patefecit radiis rota candida caelum*, use the same phrase; see Forc.: but Vitruvius

also IX 2 (4) has *plena rota totius orbis, sub rotam solis radiosque* and similar expressions in a technical astronomical description: Q. Cicero de XII signis 15 has *ciet rota fulgida solis Mobile curriculum*; Cic. Arat. 281 *rota fervida solis*; and Apul. met. IX 28 *cum primum rota solis lucida diem peperit.* 433 *mundi* i.e. caeli, as often. 436 *moles*: Ov. met. I 5 *Ante mare et terras et quod tegit omnia caelum Unus erat toto naturae vultus in orbe, Quem dixere chaos: rudis indigestaque moles*; fasti I 106 *Ignis aquae tellus unus acervus erant*, 111 *Tunc ego qui fueram globus et sine imagine moles*: ars II 467 *Prima fuit rerum confusa sine ordine moles, Unaque erat facies sidera terra fretum. Mox.. Inque suas partes cessit inane chaos.* 437 I am not quite clear whether *quorum* goes with *discordia* or *Intervalla* cet. 438 439 *Intervalla—motus* we had above II 726 727. 443 *inde loci*: 741 *Inde loci sequitur*; 791 *inde loci mortalia saecla creavit*: it is found in Enn. ann. 22, 522, sat. 3; and Cic. Arat. 327 *Umidus inde loci* cet.: *ad id locorum*, 'up to that time', is a favourite phrase of Livy; and in Sallust's Iug. we find *ad id locorum, post id locorum, postea loci*; in Plautus *postidea loci, interea loci, postid locorum*: see Ritschl Gloss. Plaut. 444 *discludere mundum* is explained by 445—448 which are a paraphrase of the words: they mean 'mundi partes separatim locare': there is no real authority for the word in Cic. Tusc. copied out of Forc. by Wak.: Virg. ecl. VI 35 *discludere Nerea ponto* the sense is essentially the same. 445 *Mem. div.*: Ov. met. I 33 *sectamque in membra redegit.* 447 448 *sorsum, Seorsus*: see n. to III 631.

449—494: the heavy particles of earth collected in the midst and squeezed out the lighter atoms of the other parts of the world: ether with its fires first burst forth and collecting on high formed the outermost sphere of the world; between it and earth the rudiments of sun and moon and stars took up their position; the earth, rid of these lighter particles, sank down still more where the bed of ocean is; and these depressions were flooded with salt water; and the more the earth was beaten upon by the heat of ether and the sun, the more it was condensed, and thus increased the ocean by particles of moisture squeezed out of it, and the heaven by elements of fire which flew off from it. 449 *primum* cet.: Plut. de plac. phil. I 4 ἀθροιζομένων δὲ ἐν ταυτῷ τούτων τὰ μὲν ὅσα μείζονα ἦν καὶ βαρύτατα πάντως ὑπεκάθιζεν κ.τ.λ.: comp. too Anaxagoras frag. 8 Schorn, 10 Schaub. τὸ μὲν πυκνὸν καὶ διερὸν καὶ ψυχρὸν καὶ τὸ ζοφερὸν ἐνθάδε συνεχώρησε, ἔνθα νῦν ἡ γῆ· τὸ δὲ ἀραιὸν καὶ τὸ θερμὸν καὶ τὸ ξηρὸν καὶ τὸ λαμπρὸν ἐξεχώρησε ἐς τὸ πρόσω τοῦ αἰθέρος: Manilius who so often imitates and at the same time tries to refute Lucr. says I 159, as if with reference to *primum*, *Ultima subsedit glomerato pondere tellus.* 454 *mag. moe. mundi* i.e. the ether.
455 *haec e levibus* cet.: Plut. l. l. ὅσα δὲ μικρὰ καὶ περιφερῆ καὶ λεῖα καὶ εὐόλισθα, ταῦτα καὶ ἐξεθλίβετο κατὰ τὴν τῶν σωμάτων σύνοδον εἴς τε τὸ

μετέωρον ἀνεφέρετο. 458 *erumpens* cet. imitated by Ovid met. I 26 *Ignea convexi vis et sine pondere caeli Emicuit summaque locum sibi legit in arce*, and Manil. I 149 *Ignis in aetherias volucer se sustulit auras Summaque complexus stellantis culmina caeli Flammarum vallo naturae moenia fecit*, and Milton par. lost III 716 *And this ethereal quintessence of heaven Flew upward*, who then goes on to imitate 519—521. 461 *gemm.* cet.: II 319 *herbae gemmantes rore recenti*. 462 *radiati*: 700 *radiatum insigne diei*: it is so used by Ennius Accius and others. 463 *fluv. perennes*: Cic. Verr. IV 107 *aquae perennes*. 466 *subt. nub. cael.*: VI 482 *Et quasi densendo subtexit caerula nimbis*: *quasi densendo* expresses exactly the *Corpore concreto* of this v. and 468, which designates that which has taken a consistence however fine, as these mists and still more the light ether: Aen. III 582 *caelum subtexere fumo*: Ovid met. XIV 368 has a different constr.: *Et patrio capiti bibulas subtexere nubes*. 467 *diffusilis* is an expressive ἅπαξ λεγόμ. 468 *Cor. concr.* cet.: Virg. ecl. VI 34 in his brief summary of Lucr. expresses these vss. by *et ipse tener mundi concreverit orbis*, where *mundi*=aetheris. 467—470 are thus clearly expressed in the epicurean passage in Plut. l. l. ὡς δ' οὖν ἐξέλιπε μὲν ἡ πληκτικὴ δύναμις μετεωρίζουσα, οὐκέτι δὲ ἦγεν ἡ πληγὴ πρὸς τὸ μετέωρον, ἐκωλύετο δὲ ταῦτα κάτω φέρεσθαι, ἐπιέζετο πρὸς τοὺς τόπους τοὺς δυναμένους δέξασθαι· οὗτοι δὲ ἦσαν οἱ πέριξ, καὶ πρὸς τούτοις τὸ πλῆθος τῶν σωμάτων περιεκλᾶτο, περιπλεκόμενα δὲ ἀλλήλοις κατὰ τὴν περίκλασιν τὸν οὐρανὸν ἐγέννησαν. *circumdatus*: comp. I 87 *circumdata comptus* and 39 *Circumfusa*. 470 *avido complexu* cet.: II 1066 *avido complexu quem tenet aether*; Emped. 185 αἰθὴρ σφίγγων περὶ κύκλον ἅπαντα: par. lost III 721 *The rest* (i.e. of the ethereal quintessence) *in circuit walls this universe*, whence one might suspect that Milton at the moment took *cetera* for a nomin.: and with this and 500 foll. comp. VII 264 *expanse of liquid pure Transparent elemental air diffused In circuit to the uttermost convex Of this great round*; Shakesp. sonnet 21 *That heaven's air in this huge rondure hems*. Balbus' description, Cic. de nat. II 101, of the stoical theory might serve for a commentary on Lucr.: *ultimus et a domiciliis nostris altissimus omnia cingens et coercens caeli complexus, qui idem aether vocatur, extrema ora et determinatio mundi*.

471 *Hunc exordia* cet.: Plut. l. l. τῆς δὲ αὐτῆς ἐχόμεναι φύσεως αἱ ἄτομοι ποικίλαι οὖσαι, καθὼς εἴρηται, πρὸς τὸ μετέωρον ἐξωθούμεναι τὴν τῶν ἀστέρων φύσιν ἀπετέλουν. 472 *Interutrasque* cet.: Plut. l. l. describes the relation between these bodies and the air more precisely than Lucr.: τὸ δὲ πλῆθος τῶν ἀναθυμιωμένων σωμάτων ἔπληττε τὸν ἀέρα καὶ τοῦτον ἐξέθλιβε· πνευματούμενος δὲ οὗτος κατὰ τὴν κίνησιν καὶ συμπεριλαμβάνων τὰ ἄστρα συμπεριῆγε ταῦτα καὶ τὴν νῦν περιφορὰν αὐτῶν μετέωρον ἐφύλαττε. 476 *viva* is poetical like his *aeternam lampada mundi* in 403; 514 *aeterni sidera mundi*; and 538 *quibus insita vivit* i.e. terra, a still bolder

expression: I 1034 *vivant labentes aetheris ignes.* 480—488 are briefly expressed by Virgil ecl. VI 35 *Tum durare solum et discludere Nerea ponto Coeperit*: Plut. l. l. κἄπειτα ἐκ μὲν τῶν ὑποκαθιζόντων ἐγεννήθη ἡ γῆ, ἐκ δὲ τῶν μετεωριζομένων οὐρανὸς πῦρ ἀήρ· πολλῆς δὲ ὕλης ἔτι περιειλημμένης ἐν τῇ γῇ πυκνουμένης τε ταύτης κατὰ τὰς ἀπὸ τῶν πνευμάτων πληγὰς καὶ τὰς ἀπὸ τῶν ἀστέρων αὔρας [? αὐγὰς] προσεθλίβετο πᾶς ὁ μικρομερὴς σχηματισμὸς ταύτης καὶ τὴν ὑγρὰν φύσιν ἐγέννα. ῥευστικῶς δὲ αὕτη διακειμένη κατεφέρετο πρὸς τοὺς κοίλους τόπους καὶ δυναμένους χωρῆσαί τε καὶ στέξαι, ἢ καθ' αὑτὸ τὸ ὕδωρ ὑποστὰν ἐκοίλανε τοὺς ὑποκειμένους τόπους: I have quoted thus largely from this passage, because I believe it to be from the pen of Epicurus. 482 *fossas* poetically for all hollows. 484 485 *cog. terr. in artum*: Aetna 109 *non omnis in artum Nec stipata coit.* 485 *verberibus*: 1104 *verberibus radiorum.* *extrema ad limina* is of course the whole outer surface presented to them. 487 comp. Manil. I 163 *Quoque magis puras umor secessit in undas Et saccata* (*siccata* all mss. and editions) *magis struxerunt* (so mss. rightly: *strinxerunt* editions) *aequora terram.* *salsus sudor*: Plut. de plac. phil. III 16 Ἐμπεδοκλῆς ἱδρῶτα τῆς γῆς ἐκκαιομένης ὑπὸ τοῦ ἡλίου διὰ τὴν ἐπιπόλαιον πίλησιν [εἶναι τὴν θάλατταν], and Aristotle meteor. II 3 p. 357 25 observes that the phrase may suit poetry, but is unfit for natural science: II 465 *Sudor uti maris est* has nothing in common with the notion here: Sen. nat. quaest. III 15 7 *sudorem aquileges vocant quia guttae quaedam vel pressura loci eliduntur* cet. 488 *camposque natantis* recurs VI 405 and 1142; 267 *camposque natare*: Virg. geor. III 198 *campique natantes*; Aen. VI 724 *camposque liquentis*; Enn. ann. 584 and Manil. I 155, in the midst of a long imitation of this part of Lucr., *fluctusque natantes.* 493 *neque enim* cet.: the rocks could not yield at all; the other parts being more or less dense would sink more or less.

495—508: thus the earth sank to the bottom, and sea air and ether were left separate, ether above all, which glides on its even way and mixes with none of the lower elements. 499 *liquidis*: all were pure compared with the earth, though not relatively to ether. 500 *aliis alia* i.e. relicta sunt. *liquidissimus* cet.: Ovid met. I 67 *liquidum et gravitate carentem Aethera nec quicquam terrenae faecis habentem.* 502 *turbantibus*, 504 *turbare* are neut.: see n. to II 126. 503 *haec Omnia*, all this troubled air that we see here below. *haec*: comp. IV 132 *in hoc caelo qui dicitur aer*, VI 483 *huc veniant in caelum extrinsecus*; Cic. pro Caelio 39 *qui haec ex minimis tanta fecerunt*; Livy XXXIV 24 4 *ut ab latrocinio quoque Aetolorum satis pacata haec relinquatis*; Aen. IX 522 *consule longe, Haec ego vasta dabo*; [Sen. rhet. controv. I 6 4 *et haec non putant magna, nisi apparuerit ex parvis surrexisse*:] and with *omnia haec* comp. Livy V 44 7 *nec pati haec omnia Galliam fieri*; VI 40 17 *cum praeter capitolium atque arcem omnia haec hostium erant*; [Cic. epist. VII 20 1 *haec omnia*; Thuc. IV 60 at end τάδε πάντα.] 505 *labens* cet.:

this view he seems to prefer: so 1436 *mundi magnum versatile templum*; though in the next passage he leaves it an open question, as one beyond the reach of our experience and certain knowledge: 510 *caeli si vortitur orbis*, 517 *possit caelum omne manere In statione.* 507 *Pontos* cet.: Aristotle Pliny and others attest this, and Sen. nat. quaest. IV 2 29 *ob hoc Pontus in infernum mare adsidue fluit rapidus.. in unam partem semper pronus et torrens*: Othello III 3 *like to the Pontick sea Whose icy current and compulsive course Ne'er feels retiring ebb, but keeps due on To the Propontick and the Hellespont.* 508 a fine example of sound and rhythm adapted to sense.

509—533: the stars may move from various causes: if the whole heaven revolves, then must we say that, while an air presses on each pole and keeps it in its place, the heaven revolves with its stars by a third air which either blows on it above in the direction in which it and its stars are going, or beneath in an opposite direction; so that the whole sphere is thus kept in motion like a waterwheel: if the heaven does not move, then may the stars move because they have in them fires of ether trying to escape and thus driving them on; or an air blowing from some quarter may impel them; or they may move of themselves whither their food invites them: it cannot be told for certain how this goes on in our world; but in the countless existing worlds every one of these causes is in operation; and one must act in this our world; but it is rash to assert that any one must be the sole cause.—This passage too as Lach. has proved stands in no proper connexion with what precedes and follows: 534 should at once follow 508; and at 774 he makes no allusion whatever to this paragraph: clearly then it is an after addition of the poet's who had observed that he had entirely omitted this question of the stars, though he had so fully discussed sun and moon: it was left then by him unconnected with the rest, and placed here by his first editor.—The passage generally interrupts the fine flow and connexion of what precedes and follows; and 510 *caeli si vortitur orbis*, without one word of explanation, is strangely harsh after 505—508 *Ipse suos ignis certo fert impete labens* cet. It may be true, as Ussing and others have argued, that the passage would be more in place between 563 and 564; it may be that the poet would have finally put it there in some shape or other; but as it now stands, it will adapt itself to no context. 510 *Principio*: see n. to 505, and comp. 1436 *mundi magnum versatile templum.* 511 *Ex utraque* cet.: in this case the sphere of heaven must revolve on its axis; this axis therefore must be supported in its position: this is done by an air pressing outside on each pole, and keeping each fixed in its place; but then to put the sphere in motion another force is wanted; this must be a third air; and it may act in two ways, it may blow at right angles to the poles either above the sphere in the direction in which the sphere has to move with its stars, or it may

blow underneath in the opposite direction, moving it thus as a stream of water passing under a wheel moves the wheel, that is to say in the direction opposite to its own course. *polum* is the axis of the sphere of heaven, and *utraque pars* is each pole, the north and the south. 514 *volvenda*: 1276 *volvenda aetas*; VI 179 *glans volvenda*: the gerund has the force of a pres. partic.; see Roby gramm. pt. II p. LXXVIII: Enn. ann. 520 *Clamor ad caelum volvendus*; Virg. *volvenda dies*; II 991 *oriundi*: comp. *secundus*, and perhaps *facundus iucundus* etc. *aeterni*: see n. to 476 *viva*; and comp. Germanicus phaen. 656 *Declivemque trahunt aeterni pondera mundi.* 516 the *haustra* or *austra* belong to the *rotae*: Nonius p. 13 '*austra* proprie dicuntur rotarum cadi ab auriendo': he then cites this passage: they are therefore scoops or basins attached to the wheel to lift up the running water: Vitruv. x 5 (10) *fiunt etiam in fluminibus rotae...circa earum frontes adfiguntur pinnae quae cum percutiuntur impetu fluminis, cogunt progredientes versari rotam, et ita modiolis aquam haurientes et in summum referentes..ipsius fluminis impulsu versatae* cet.: the *modioli* answer to the *haustra* of Lucr. and the contrivance gives a good picture of what he means: [see Bleumner, Gewerbe u. Kuenste I p. 47 n. 2.] 521 *Summania* must be genuine, though a ἅπαξ λεγ. and must have reference to Summanus or Juppiter Summanus, the god of the nightly sky, to whom as Pliny II 138 tells us the Romans assigned *nocturna fulgura*, as they gave *diurna* to Jupiter: the word is evidently connected with *mane*, *Matuta*, *matutinus*, signifying the god who precedes the *mane*: *Summania templa* then I take to be the nightly *templa* of Summanus, the nightly sky; as Plaut. speaks of *Neptunia templa*, i.e. the sea: comp. too *Volcanius Saturnius* etc. and *Acherusia templa.* Bergk however in Jahn's Jahrb. vol. 83 p. 506 says that it is to *Summanus*, as *manes* to *manus cerus*; and = sublustria; as *manus* originally must have meant 'bright, shining', and then metaph. 'good, propitious'. 522 *aliunde fluens alicunde extrinsecus*, another instance of pleonastical language: *alicunde* is *ab aliquo loco*, the opposite of *aliquo*: so that *ali. alic.* seems to be only *ab aliquo alio loco*, and *extrinsecus* implies the same thing, the whole phrase being simply the contrary of the *inclusi aestus*, the heats shut up in the stars themselves: Plaut. trin. 758 twice uses *ab amico alicunde*; epid. III 1 10 *verum aliquid aliqua aliquo modo Alicunde ab aliqui aliqua tibi spes est*; 13 *Quippe tu mihi aliquid aliquo modo alicunde ab aliquibus blatis.* 524 *euntis* must be the nomin. 524 *euntis*, 525 *pascentis*: see n. to 692 693. 523—525 seems at first sight almost a stoical doctrine; but is merely a poetical mode of saying that the fires of the stars are drawn on by that portion of the ether which provides them the fuel or nutriment they need: three out of the four causes here assigned are given by Epicurus himself in his letter to Pythocles in Diog. x 92 τάς τε κινήσεις αὐτῶν οὐκ ἀδύνατον μὲν γίνεσθαι κατὰ τὴν τοῦ ὅλου οὐρανοῦ δίνην, ἢ τούτου μὲν στάσιν αὐτῶν δὲ

δίνην κατὰ τὴν ἀρχῆθεν ἐν τῇ τοῦ κόσμου γενέσει ἀνάγκην ἀπογεννηθεῖσαν ἐπ' ἀνατολῇ, εἶτα τῇ θερμασίᾳ κατά τινα ἐπινέμησιν τοῦ πυρὸς ἀεὶ ἐπὶ τοὺς ἑξῆς τόπους ἰόντος. 526 comp. Livy x 18 7 *piget tamen ponere certum.* 529 *sequor disponere* is an unusual constr.: it = III 420 *pergam disponere*: Ov. trist. II 263 *Persequar inferius.. Posse nocere animis carminis omne genus*; [Q. Cic. de pet. 49 *hoc sequor, haec pertinere*; Hor. od. I 23 9 *non ego te.. frangere persequor*; Plaut. asin. 159 *tractare exequar*; merc. 901 *hoc itiner perficere exequar*; ciris 254 *Persequitur.. causas exquirere*; Aen. III 31 *Rursus et alterius lentum convellere vimen Insequor et causas penitus temptare latentis.*] 532 *vegeat* = faciat ut vigeat: an archaic word. 533 *ped. progred.*: 1453 *Paulatim docuit pedetemtim progredientis.*

The last eight verses are to be noted, as bearing not only on what precedes, but also on what follows in this book about the sun and moon, and in the sixth about thunder clouds and other celestial phenomena. On comparing Epicurus' letter to Pythocles in Diog. Laert. x 84 foll. it will be found that master and pupil are in precise agreement on this as on most matters. The contempt which Epicurus had for astronomers and other system-mongers and the doctrine he held with regard to μετέωρα form one of the most curious features of his philosophy. Whatever could be brought to the test of sense and was confirmed by it was true; all opinions again which could not be brought to such test and at the same time were not contradicted by it were to be held to be equally true. Now to apply this to the present question: he says l. l. 86 it is a certain truth that the universe consists of body and void and that atoms are indivisible: so with all things ὅσα μοναχὴν ἔχει τοῖς φαινομένοις συμφωνίαν, ὅπερ ἐπὶ τῶν μετεώρων οὐχ ὑπάρχει· ἀλλὰ ταῦτά γε πλεοναχὴν ἔχει καὶ τῆς γενέσεως αἰτίαν καὶ τῆς οὐσίας ταῖς αἰσθήσεσι σύμφωνον κατηγορίαν. οὐ γὰρ κατ' ἀξιώματα κενὰ καὶ νομοθεσίας φυσιολογητέον, ἀλλ' ὡς τὰ φαινόμενα ἐκκαλεῖται, and then he goes on to give this reason, οὐ γὰρ ἤδη ἰδιολογίας καὶ κενῆς δόξης ὁ βίος ἡμῶν ἔχει χρείαν, ἀλλὰ τοῦ ἀθορύβως ἡμᾶς ζῆν. His doctrines then of body and void and the nature of atoms are certain truths which admit of but one explanation because every phenomenon here on earth attests them, and by most certain induction and reason they can be extended to the whole universe, alike to what is below and what is beyond our sense. Again it is a certain truth that the sun is really about the same size as it appears to us to be: see Epic. l. l. 91, Lucr. v 564—591: because from the experiments you can make with fire here on earth and the fact that so long as it is visible it does not diminish in size, but sooner indeed loses its brightness, you can by reason and induction apply these facts to the sun and the stars. Again that our world was formed nearly in the manner just described by Lucr. is true, because earth water air and fire of which it is composed always do and must in like circumstances act in the way they are there

represented as acting. But to say that the stars and the sun must move from some one controlling cause, or that eclipses can admit of only one explanation, or that lightning and clouds can be formed in only one way is a vain unphilosophical assumption, since they are beyond our powers of observation and there are many ways of explaining them equally probable, to which *οὐδὲν τῶν φαινομένων ἀντιμαρτυρεῖ*, or *οὐθὲν τῶν ἐναργημάτων διαφωνεῖ* and the like: you must not then fear *τὰς ἀνδραποδώδεις τῶν ἀστρολόγων τεχνιτείας*: to give one explanation *καθῆκόν ἐστι τοῖς τερατεύεσθαί τι πρὸς τοὺς πολλοὺς βουλομένοις*, nay it is *μάταιον*, and even *μανικόν*. Well then all the possible reasons which Lucr. has just given of the motion of the stars are equally unrefuted by sense; are equally true therefore; and though only one of them may apply to our world, yet in the countless worlds, like and unlike ours, existing in the universe they all may and must find their place, l. l. 94 *ἐὰν μή τις τὸν μοναχῇ τρόπον κατηγαπηκὼς τοὺς ἄλλους ὡς κενοὺς ἀποδοκιμάζῃ, οὐ τεθεωρηκὼς τί δυνατὸν ἀνθρώπῳ θεωρῆσαι καὶ τί ἀδύνατον, καὶ διὰ τοῦτ' ἀδύνατα θεωρεῖν ἐπιθυμῶν*.

534—563: the earth remains at rest in the midst of the world, because its weight gradually diminishes and below it is another nature closely connected with the air above the earth: thus the whole forms as it were an organic whole, and one part does not weigh down another any more than one member of the body another member, the whole having been united and working together since its first formation: see too how the light soul sustains and puts in motion the whole heavy body.

534 *Terraque*: Lucr. does not tell us what the shape of the earth is; but he must have conceived it as presenting a surface more or less flat both above and below. 535 *Evanescere* cet. i.e. below on the under-surface: *evanescere et decrescere*, as 625 *Evanescere, imminui*, seems a decided *ὕστερον πρότερον*: for the latter must have place before the former: [comp. Caes. b. civ. III 1 3 *ad timorem novarum tabularum tollendum minuendumque.*] 538 *vivit*: see n. to 476 *viva*: yet it does appear harsh to apply this epithet to the *bruta terra*, the model of *Quid sit vitali motu sensuque remotum*: perhaps he was thinking of it as forming a sort of organic body with the air, like the human body with which he proceeds to compare it. Epic. in Diog. X 74 says merely *καὶ ἡ γῆ τῷ ἀέρι ἐποχεῖται*: in XI of his *περὶ φύσεως*, col. 1, vol. Hercul. II, he seems to be speaking to the same purpose as Lucr.; but its condition leaves it scarcely intelligible. Plut. de plac. phil. III 15 assigns this notion to Anaximenes: *διὰ τὸ πλάτος ἐποχεῖσθαι τῷ ἀέρι*. Pliny nat. hist. II 10 gives an account much resembling that of Lucr.: *spiritus quem Graeci nostrique eodem vocabulo aera appellant, vitalem hunc et per cuncta rerum meabilem totoque consertum; huius vi suspensam cum quarto aquarum elemento librari medio spatii tellurem* cet. A stoic might perhaps have pointed to his fierce attack on their cosmical system I 1052

Illud in his rebus longe fuge credere cet.: and argued that after all his mode of supporting his earth in space did not so much differ from theirs; but what he objected to in them was their making the universe finite, our one *mundus* in fact, which he argues could not be held together amid an infinite void: atoms infinite in number are always streaming up on all sides to supply our world. The stoic Manilius I 194 from the earth argues to the *mundus*, his universe: *Nec vero tibi natura admiranda videri Pendentis terrae debet, cum pendeat ipse Mundus et in nullo ponat vestigia fundo.* 545 *quid obeat* i.e. quod munus obire debeat, what its proper and regular function is. 556 foll.: comp. IV 898—906.

564—591: the sun, the moon whether it shine by its own or borrowed light, and the stars are about the same size as, it may be a very little greater or less than, they appear to us; just as fires here on earth so long as they are visible do not increase or diminish in size to any great extent. 567 *Adicere*: I 688 *rei quae corpora mittere possit Sensibus et nostros adiectu tangere tactus.* 569 *ad speciem*: see n. to III 214. 571 *mulcent*: III 141 *haec loca circum Laetitiae mulcent.* 572, 581 and 589 *filum*: see n. to II 341. 574 *pl. aut m.*: I 240 *minus aut magis indupedita*: [comp. Hirt. b. Gall. VIII 20 1 *quae non longius ab ea caede abesse plus minus octo milibus dicebantur.*] 575 *Lunaque* cet.: you can tell for certain that the moon is of the same size as it looks; but you cannot tell whether its light is its own or borrowed; whereas unphilosophical astronomers assert that its light must be borrowed, and that it is thousands of times larger than it appears: see remarks added after 533. *notho*: Catull. 34 15 *notho es Dicta lumine luna.* 578 *Quam* i.e. figura, *qua cernimus, esse videtur.* 583 *ut est* cet. i.e. necesse est videatur nobis e terra talis qualiscumque est oris notata et quantacumque est: the use of *utcumque* here closely resembles that of *ut* in I 442 *erit, ut possunt*; and II 901 *ut debent*: see n. there. 584 *Quanta quanta*: Cic. ad Att. XII 23 3 *quantiquanti* 'at whatever price': Donatus to Ter. ad. 394 '*quantus quantus*, id est quantuscumque': comp. *quisquis*=quicumque, *quoquo*=quocumque; *quamquam, utut, ubiubi, undeunde.* 585 is immediately connected with 590 *Scire licet*, 586—589 being a parenthetical illustration from earthly fires. 588 *mutare* neut. as often in prose; see Forc.: *perparvom quiddam* being a cognate neut. 589 *Alteram utram* i.e. maiorem aut minorem: see n. to III 904 for elision: *alteram utram*, as well as *alterum utrum, alterius utrius* are found in Cicero: *altera utra* nom. and abl. in Livy and others: Lucr. uses elsewhere *alterutrā* and *alterutrum.* 590 *perquam pauxillo, exigua parte brevique*, as *Perparvom quiddam*, his favourite accumulation of terms to shew the extremely small amount of increase or decrease. The above passage exactly agrees with Epic. l. l. 91 τὸ δὲ μέγεθος τοῦ ἡλίου τε καὶ τῶν λοιπῶν ἄστρων κατὰ

μὲν τὸ πρὸς ἡμᾶς τηλικοῦτόν ἐστιν ἡλίκον φαίνεται· (τοῦτο καὶ ἐν τῇ ἑνδεκάτῃ περὶ φύσεως. ‘εἰ γὰρ’ φησὶ ‘τὸ μέγεθος διὰ τὸ διάστημα ἀποβεβλήκει, πολλῷ ἂν μᾶλλον τὴν χρόαν’)· ἄλλο γὰρ τούτῳ συμμετρότερον διάστημα οὐθέν ἐστι· κατὰ δὲ τὸ κατ' αὐτὸ ἤτοι μεῖζον τοῦ ὁρωμένου ἢ ἔλαττον μικρῷ ἢ τηλικοῦτον ἡλίκον ὁρᾶται· οὕτω γὰρ καὶ τὰ παρ' ἡμῖν πύρα ἐξ ἀποστήματος θεωρούμενα κατὰ τὴν αἴσθησιν θεωρεῖται. καὶ πᾶν δὲ τὸ εἰς τοῦτο τὸ μέρος ἔνστημα ῥᾳδίως διαλυθήσεται, ἐάν τις τοῖς ἐναργήμασι προσέχῃ, ὅπερ ἐν τοῖς περὶ φύσεως βιβλίοις δείκνυμεν: Lucr. doubtless had before him the 11th book of the περὶ φύσεως which Diogenes quotes in the middle of this extract, and of which such imperfect fragments are published in the volum. Herculan.; the τὴν χρόαν there is the *claram speciem certamque figuram* of Lucr.: Cicero does not lose this opportunity of jeering, as in the acad. pr. II 82, and de fin. I 20 *sol Democrito magnus videtur, quippe homini erudito in geometriaque perfecto; huic pedalis fortasse; tantum enim esse censet quantus videtur, vel paulo aut maiorem aut minorem.*
591 *maioris*: the *-is* is common in comparatives: the carmen arvale has *in pleores* once, *in pleoris* twice; the best mss. of Cicero Virgil and others give occasionally the same form; Charisius I p. 137 Keil attests *maioreis* on the authority of Pliny as used by Cicero.

592—613: the great amount of heat and light proceeding from so small a sun may be explained in several ways: the sun may be the well-head to which the light and heat of the whole world flow; or the air about it may be of a nature to catch fire; or much unseen fire may exist in the neighbourhood of the visible sun. 594 *rigando*: see n. to IV 202. 598 *Largifluum* seems not to occur elsewhere; there is no authority for the word in the passage of Pacuvius quoted by Cic. de or. III 157. *lumen* is the object of *erumpere*. 604 *etiam quoque*: see n. to III 208. 605 *percipiat*: see n. to IV 729 *percipiunt oculos*. 609 *Accedere*: for form see II 1025; for accus. after it comp. Plaut. Stichus 88 *mihi paternae vocis sonitus auris accidit*: Lucilius and Accius have *accumbere mensam*: comp. too the constr. of *adeo, accedo*; Virgil's *urbem adferimur, advehitur Teucros*; and Ov. met. III 598 *adducor litora*.
610—613 Tyndall quotes what he calls ‘this remarkable passage’ before his essay on radiation, Frags. of Science p. 170; and in the course of the essay shews that the sun's invisible rays far transcend the visible in heating power; and that about 98 per cent. of the whole radiation from our fire consists of invisible rays. 613 it is not clear whether *tantum* is ‘only’ or ‘so much’.

614—649: it is by no means clear how the sun performs its annual course, and how the moon in a month goes through the same journey: Democritus may be right who says that the nearer any body is to the earth, it is carried on less swiftly by the revolution of the heaven; now the moon is nearer than the sun, the sun than the signs of the zodiac; therefore the moon seems to travel faster than the sun, the sun than the

signs, because in truth they in their revolution with the heaven catch up the moon which is slowest first, and then the sun: or two airs may blow in turns in cross directions, one of which drives the sun from the summer to the winter signs, the other drives it from the latter to the former: and so with moon and stars. 616 and 640 *flexus* are the same as *metas*. 617 *solstitialis*: the best writers confine this term sometimes to the summer solstice; Cic. de nat. II 19 *solis accessus discessusque solstitiis brumisque cognosci.* 619 *Annua* cet.: Manil. III 515 *Annua quod lustrans consumit tempora mundum*: but comp. this v. and 691 *Propter signiferi posituram totius orbis, Annua sol in quo concludit tempora serpens, Obliquo terras et caelum lumine lustrans* with Cic. Arat. 318 *Orbem signiferum perhibebunt*, 332 *Haec sol aeterno convestit lumine lustrans, Annua conficiens vertenti tempora cursu*: Lucr. we have seen twice uses *aeternus* in this way with poetical inconsistency: and then comp. 644 *Quae volvunt magnos in magnis orbibus annos*, 648 *per magnos aetheris orbes*, 635 *ad signum quodque reverti*, 636 *ad hanc quia signa revisunt*, III 316 *Quorum ego nunc nequeo caecas exponere causas*, I 992 *sub caeli tegmine*, II 663 *sub tegmine caeli*, V 1436 *mundi . . templum Sol et luna suo lustrantes lumine*, 688 *nocturnas exaequat lucibus umbras*, 432 and 564 *solis rota*, 616 *Brumalis adeat flexus*, 640 *Brumalis usque ad flexus*, 612 *qui sit fulgore notatus*, 665 *conficere orbem*, IV 171 and VI 252 *caeli complesse cavernas*, with Cic. Arat. 232 *Haec faciunt magnos longinqui temporis annos, Cum redeunt ad idem caeli sub tegmine signum, Quarum ego nunc nequeo tortos evolvere cursus*, 236 *magnos edemus gentibus orbes*, 239 *caeli sub tegmine*, 237 *aeterno lustrantes lumine mundum*, 242 *Tam magnos orbes*, 337 *signa revisunt*, 288 *Exaequat spatium lucis cum tempore noctis*, 281 *rota fervida solis*, 282 *brumali tempore flexus*, 249 *fulgens candore notatur*, 250 *conficit orbem*, 252 *caeli lustrare cavernas.* It is evident Lucr. had studied this translation of Cicero; other parts of which are imitated in other parts of this poem.

621 *vel cum primis*, as if this seemed the most plausible theory, where all must be uncertain. 622 = III 371. 624 *cum caeli turbine*: 510 *magnus caeli si vortitur orbis*; which Lucr. also appears to think most probable. 625 *Evanescere, Imminui*: comp. 535 *Evanescere, et decrescere*, and n. there. 627 *cum poster. sig.*: it is overtaken and passed by one sign of the zodiac after another and thus left with the hinder ones, which pass it in turn, until the whole zodiac has gone by it in the opposite direction to that in which it has appeared to go through the zodiac. 628 *fervida signa* i.e. of the zodiac which are higher and therefore carried on in more rapid revolution. 629 *magis hoc* i.e. lunam magis quam hunc relinqui. [630 *abest . . propinquat* is an intrusion of oratio recta in the midst of oratio obliqua; in 632 the construction passes wholly into the former. A very similar instance is Cic. de fin. III 49 *Diogenes autem censet...non idem facere eas in virtutibus neque*

in ceteris artibus, ad quas esse dux pecunia potest, continere autem non potest. . . neque ab ulla re . . contineri potest . . nulla ars divitiis contineri potest.] 631 *tendere cursum* seems to be no more than *tendere iter*, or *cursu tendere*, which Sallust and Virgil use: Aen. XII 909 *avidos extendere cursus*: Livy XXIII 34 5 has *tendere cursum* and Virg. Aen. V 834 *contendere cursum* for a ship keeping on its course. 632 *fertur* cet.: he now passes to the oratio recta, which he had partially adopted in 630 *abest, propinquat.* 636 *ad hanc revisunt*: II 359 *revisit Ad stabulum*, where see note. I do not find Democritus' name elsewhere attached to this theory: Geminus elem. astr. 10, though he condemns it, gives a lucid account of it; λέγουσί τινες, he says; and he illustrates it by this comparison: if twelve runners are going round in a circle at the same pace and a thirteenth is going the same round at a slower pace, he will appear to be running through those behind him, while in truth they are all passing him: the sun or the moon is this thirteenth; the twelve runners the signs of the zodiac which are really passing the sun and moon, while these seem to be going through them in the contrary direction. 637 *aer...alter* cet. i.e. duo aeres, alter *Qui queat aestivis* cet., alter *qui reiciat.* 641 *frigoris umbris*: Wak. quotes Virg. geor. III 357 *Tum sol pallentis haut umquam discutit umbras.* 644 *Quae volvunt* cet. refers of course only to *stellas*: Lucr. imitates Cicero quoted above. *volvunt annos* i.e. volvendo faciunt; Cicero less poetically *Haec* (Hae) *faciunt magnos longinqui temporis annos*; Aratus himself 458 Μακροὶ δὲ σφέων εἰσὶν ἑλισσομένων ἐνιαυτοί. 645 *Aeribus*: see n. to II 1097 *caelos.* 647 *supernis* dat. gov. by *diversas*: Hor. epist. I 18 5 *Est huic diversum vitio vitium*: Ovid met. IX 321 *forma est diversa priori*; Juv. X 3 *illis multum diversa*: this constr. is common in Quintilian; see Bonnell's lexicon. Our sentence is a very common kind of conciseness of expression for *in partis contrarias iis partibus in quas superna eunt*, and resembles III 1038 *eadem aliis sopitu' quietest* and the like. 649 *sidera* here, as above 623, means all the heavenly bodies, sun moon planets and fixed stars.

650—655: night comes, either because the sun is extinguished, or, if that is not so, because he passes beneath the earth in the same way as he passed above it.—In this and the following paragraphs he leaves you your choice between the hypothesis that the sun dies daily and a new one takes its place in the morning, and theories more resembling the ordinary belief of astronomers; experience being unable to decide: just so his master in Diog. X 92 ἀνατολαὶ καὶ δύσεις ἡλίου καὶ σελήνης καὶ τῶν λοιπῶν ἄστρων καὶ κατ' ἄναψιν γίνεσθαι δύνανται καὶ κατὰ σβέσιν . . . . καὶ καθ' ἑτέρους δὲ τρόπους, ὥστε τὰ προειρημέν' ἀποτελεῖσθαι· οὐδὲν γὰρ τῶν φαινομένων ἀντιμαρτυρεῖ κ.τ.λ. 651 *de*: see n. to VI 290. 652 *efflavit lan. ignis*: comp. 758 *Solque suos etiam dimittere languidus ignis* cet. and II 832 *prius omnem efflare colorem.* *efflare* therefore = dimit-

tere, not its usual sense. 653 *itere*: on the other hand VI 339 *itiner*: *iteris* or *itere* appears to be used by Naevius Pacuvius Accius Varro; *itiner* by Plautus Ennius Pacuvius Accius Manilius I 88.

656—679: daylight returns at stated hours, either because the same unchanged sun passes under the earth and comes above it again, or because the fires of a new sun collect every morning at the proper time: this may well be; for many things, such as puberty in man, come at a certain time; and many things such as snow rain and lightning return pretty regularly: so it has been from the beginning and so it continues to be.—The alternative here allowed is the same as that given in the preceding passage; see Epicurus there cited: the old sun returns, or a fresh one is born every day. 659 *Anticipat* governs *caelum*: comp. Cic. ad Att. VIII 14 2 *dices, quid igitur proficis qui anticipes eius rei molestiam quam triduo sciturus sis?* 663 *Idaeis* cet.: Diodorus Sic. XVII 7 6 gives the same curious story more fully than Lucr.; as well as Mela I 94 and 95: the Trojan Ida is spoken of. The stoic Cleomedes de subl. II 87 scoffs at this theory of Epicurus: καίτοι πρὸς ἅπασι τοῖς εἰρημένοις ἀτοπωτάτοις οὖσι ἔτι καὶ τὰ ἄστρα ἀπεφήνατο ἀνατέλλοντα μὲν ἐξάπτεσθαι, δυόμενα δὲ σβέννυσθαι, and he cleverly remarks that this is like saying that men while they are seen are alive; as soon as they are out of sight are dead. 664 *orienti*: 887 *fugienti l. vita*; VI 126 *Turbine versanti*; IV 914 *Vera repulsanti*: the abl. in *i* is rare, when it is a real participle; common where the partic. is rather an epithet, as 1074 *florenti aetate*; I 282 *Flumine abundanti*; VI 1197 *Octavoque fere candenti lumine.* 670—673 *certo tempore, tem. certo, in cer. tem.*: see n. to I 93. 673 *inpubem* cet.: 888 *iuventas Occipit et molli vestit lanugine malas*: Aen. VIII 160 *Tum mihi prima genas vestibat flore iuventas.* 674 *pariter malis*: I 88 *Ex utraque pari malarum parte profusast.* [Sen. rhet. suas. 3 1 Arellius Fuscus says of the moon, *splendensque pariter adsurgit in cornua.*] 676 *Non nimis* in this sense is common enough in Cicero. 678 *Atque ita* cet. is like Epicurus' expression l. l. 92 κατὰ τὴν ἀρχῆθεν ἐν τῇ τοῦ κόσμου γενέσει ἀνάγκην ἀπογεννηθεῖσαν. 679 *Consequë*: comp. n. to I 560 *relicuo*, of which the principle is the same; and see Lachmann's very learned note: he shews that *adsecuë* is used more than once by Plautus: the old writers never contracted the last two syllables into one in any of these words, any more than in *ingenuus perpetuus ambiguus* and the like.

680—704: days and nights lengthen and shorten time about, either because the sun continuing the same chooses to run in unequal curves above and below the horizon, his course above being as much more or less than a semicircle, as his course below is less or more, until at each equinox the two are equal: all this you may see marked on a map of heaven: or else the air is denser in some parts than in others, so that he travels more slowly through the former: and thus the winter nights are

longer: or else a new sun is always born, and in successive parts of the year his fires collect more or less quickly and so rise in particular quarters.—Again three courses are open to your choice, the first most resembling the theory of vulgar philosophers. 681 *cum sumant*: see n. to III 736 *Cum subeant*. 682 *sol idem*, as 658. 683 *amfractibus*: this word is used by Cicero more than once for the annual course of the sun; see Forc.: but Lucr. here employs it for the unequal daily curves it makes above and below the horizon. 686 *relatus*: if the other part is from east to west, *relatus* expresses the return from west to east. 687 *anni Nodus* must here mean the intersection of the ecliptic and equator at the two equinoxes, though *nodus* in astronomical Latin and σύνδεσμος in Greek have also other meanings: Cic. Arat. 287 *In quo autumnali atque iterum sol lumine verno Exaequat spatium lucis cum tempore noctis.* 689 *cursu* i.e. solis. *medio* governs *flatus*; comp. Caes. bell. Gall. I 34 1 *aliquem locum medium utriusque*; Ovid met. V 409 *Est medium Cyanes et Pisaeae Arethusae...aequor*; 564 *medius fratrisque sui maestaeque sororis*; 644 *medium caeli terraeque per aera vecta est*; VI 409 *Qui locus est iuguli medius summique lacerti*; Aen. IV 184 *volat caeli medio terraeque*; Hor. epist. I 18 9 *Virtus est medium vitiorum et utrimque reductum.* Cic. in his Aratea often has *aurae aquilonis, austri*, and the like to denote the point from which the wind blows, as Lucr. here uses *flatus*: 280 *a clarisonis auris aquilonis ad austrum Cedens*, 272 *ab infernis austri convertitur auris*, 253 *Quorum alter tangens aquilonis vertitur auras*: Lucr. has probably taken the notion from him. When the sun is midway between the two solstices, the heaven *Distinet aeq. discr. metas*: 617 *Cancri metas solstitiales* was the tropic of cancer; and it would be natural therefore to take *metas* here for the two tropics, as editors have generally done. But the sentence is then a sheer truism, when the sun is midway between the tropics he is midway between them. Lucr. has been speaking of the inequality of day and night and accounting for it by the path of the sun, *imparibus currens amfractibus, in partis non aequas dividit orbem*, until *anni Nodus nocturnas exaequat lucibus umbras*: here too I take him to be speaking of the daily revolution of the sun, when day and night are equal. *metas* can of course be used for the points where he rises and sets; as Ovid met. III 145 *Et sol ex aequo meta distabat utraque*; II 142 *Hesperio positas in litore metas Umida nox tetigit*; ars III 724 *Inque pari spatio vesper et ortus erant*: the heaven keeps his two goals, the points where he rises and sets, at an equal distance from north and south, i.e. speaking roughly he rises and sets due east and west: 683 we had *amfractibus* for the diurnal course, which Cicero uses, as was said, for the annual. 690 *aequato discr.*: he no longer *in partis non aequas dividit orbem.* 691 *sign. orbis*: Cic. Arat. 317 *Zodiacum hunc Graeci vocitant nostrique Latini Orbem signiferum perhibebunt nomine vero*; the same name he and others give to it in prose

as well: 712 *signorum per orbem.* 692 *serpens*, 693 *lustrans*: see notes 1 for three other instances in which Lach. has corrupted his author from a vain objection to two participles in such a connexion as this: Cicero in his Aratea again and again has examples of this, and in the parts most imitated by Lucr. as 237 *Quattuor aeterno lustrantes lumine mundum, Orbes stelligeri portantes signa feruntur, Amplexi terras caeli sub tegmine fulti*; 260 *recedens, devitans*; 264 *consistens, distinguens*; 332 *lustrans, conficiens*; 379 *depellens, pandens*; progn. fr. 3 *Cana fulix fugiens, clamans, fundens*: Lach. in support of his violent and clumsy changes has these words 'nam via solis obliqua est, totus obliquus zodiacus, lumen solis nequaquam semper obliquum est'; the point of which so far as Lucr. and the latitude of Rome Berlin or Cambridge are concerned I have in vain attempted to see. 699 *noctes* cet.: Virg. geor. II 482 *vel quae tardis mora noctibus obstet*; if the meaning indeed be the same. 700 *radiatum*: 462 *radiati lumina solis.* *insigne*: Cic. de nat. I 100 *cum ipsum mundum, cum eius membra, caelum terras maria, cumque horum insignia, solem lunam stellasque vidissent*: the sun is day's chief ornament: orator 134 *similia illis quae in amplo ornatu scaenae aut fori appellantur insignia, non quod sola ornent sed quod excellant.* 701 *Aut etiam* cet.: he must provide as usual for the hypothesis that a fresh sun is born every day. *sic* refers of course to 696 *quia crassior est* cet. 703 *certa parte*: a particular quarter which varies every day throughout the year. *certa desurgere parte*: Hor. sat. II 2 76 *ut pallidus omnis Cena desurgat dubia*; I 4 31 *nequid Summa deperdat metuens*; II 2 105 *Non aliquid patriae tanto emetiris acervo*; epist. I 6 21 *dotalibus emetat agris*: Lucr. himself II 703 *egigni corpore vivo*; VI 761 *quibus effiant causis.* 704 see what is said in notes 1 to prove that a v. is here lost: unless it be so, there is nothing to indicate that he is speaking of the daily creation of a new sun, as he manifestly must be doing; comp. too the similar way in which he concludes his discussion of the moon in the next paragraph, 748—750 *Quo minus est mirum si certo tempore luna Gignitur et certo deletur tempore rusus* cet. Among those who thus 'seem to speak the truth' was Heraclitus, who held like Epicurus that it was εὖρος ποδὸς ἀνθρωπείου.

705—750: the moon may borrow its light from the sun, increasing as it recedes from him, until, when directly opposite, it shews its full face; and again diminishing as it again approaches: in this case the moon must be a round ball moving below the sun: it may shine too with its own light, and its partial or total concealment may be caused by an opaque body invisible to us getting between it and us in various ways: or thirdly it may be a ball half bright half opaque which presents to us all these various phases, as the Chaldees assert in opposition to the first hypothesis, that of the astronomers: or lastly a new moon may be born daily, each successively presenting a different phase; thus many

things, for instance the four seasons, come round in regular order.—Epic. l. l. 94 reasons in just the same way, κενώσεις τε σελήνης καὶ πάλιν συμπληρώσεις καὶ κατὰ στροφὴν τοῦ σώματος τούτου δύναιντ' ἂν γίνεσθαι καὶ κατὰ σχηματισμοὺς ἀέρος ὁμοίως, ἔτι τε καὶ κατ' ἐπιπροσθήσεις καὶ κατὰ πάντας τρόπους καθ' οὓς καὶ τὰ παρ' ἡμῖν φαινόμενα ἐκκαλεῖται εἰς τὰς τούτου τοῦ εἴδους ἀποδόσεις...ἔτι τ' ἐνδέχεται τὴν σελήνην ἐξ ἑαυτῆς ἔχειν τὸ φῶς, ἐνδέχεται δὲ καὶ ἀπὸ τοῦ ἡλίου· καὶ γὰρ παρ' ἡμῖν θεωρεῖται πολλὰ μὲν ἐξ ἑαυτῶν ἔχοντα πολλὰ δ' ἀφ' ἑτέρων...ἡ δ' ἔμφασις τοῦ προσώπου ἐν αὐτῇ δύναται μὲν γίνεσθαι καὶ κατὰ παραλλαγὴν μερῶν καὶ κατ' ἐπιπρόσθησιν καὶ κατὰ πάντας τρόπους ὅσοι ἂν θεωροῖντο τὸ σύμφωνον τοῖς φαινομένοις κεκτημένοι. The reasoning is quite the same as in the preceding sections: any of these theories may be true, and as none can be proved not to be true, none being opposed to sense, all are equally true; any one therefore μαχόμενος τοῖς ἐναργήμασιν οὐδέποτε δυνήσεται ἀταραξίας γνησίου μεταλαβεῖν: the attainment of this ἀταραξία γνήσιος being the end Epicurus and Lucretius had before them in writing their physics, and not the vain ambition to propagate idle mathematical and other theories. 707 and 724 *Ad speciem* = ad visum: see n. to IV 236. 708 *pleno bene*: this use of *bene* is a favourite one with Cicero. 712 *signorum per orbem*: see n. to 691 *signiferi orbis*. Lucr. here gives a lucid statement of the true cause. 714 *cursus viam*: 1124 *iter viai* and II 626 *iter omne viarum* seem not unlike: Vitruvius IX 2 1 (4 17) *cursum itineris sui peragens*. 715 *Est quare possit* = est ut possit, so common in Lucr.: see n. to I 620 *Nil erit ut distet*: it means therefore simply *potest*; and is not used as 730 *sit cur*, where *cur* has its usual meaning; it has in fact much the same force as *qua re* in II 960, and should perhaps be written as two words; see also n. to VI 132. Plut. de plac. phil. II 28 mentions Anaximander and Antiphon as holding that the moon shone with its own light; but who hit upon this notion of the parasitical opaque body in order to explain its phases, I don't know. The observant Thales taught that its light was derived from the sun.

720 *si forte* = fortasse, εἰ τύχοι, and used parenthetically, is found in Cicero, as de orat. III 47; de off. II 70; pro Mil. 104; ad Att. XIV 13 2; ad Q. frat. I 2 7: see Madvig emend. Liv. p. 123: it serves therefore here as a connecting particle in passing to a new hypothesis, and is the same as *Est etiam ut versari possit*, *ut globus* cet. 723 *eam partem* i.e. the *dimidiam partem* just mentioned. 726 *glomeraminis atque pilai* seems a hendiadys for the *globus pilai* of 720. 727 *Babyl. Chald. doct.*: he speaks of the theory of Berosus, of which Vitruv. IX 2 (4) gives a full account: I will quote the beginning, *Berosus qui a Chaldaeorum civitate sive natione progressus in Asia etiam disciplinam Chaldaicam patefecit, ita est professus, pilam esse ex dimidia parte candentem, reliqua habere caeruleo colore. cum autem cursum itineris sui peragens subiret sub orbem solis, tunc eam radiis*

et impetu caloris corripi convertique candentem, propter eius proprietatem luminis, ad lumen. cum autem evocata ab solis orbi superiora spectet, tunc inferiorem partem eius, quod candens non sit, propter aeris similitudinem obscuram videri, and so on: hence his followers were called *Chaldaei*. *Chaldaeum* is of course the gen. plur.: 1063 *canum Molossum*; 405, VI 754 and II 600 *Graium*; I 86 *Danaum*; VI 642 *Siculum*; I 1 *Aeneadum*: *Romanom* occurs on one of the oldest coins. 728 *Astrol. artem* is the system of the astronomers who held the first mentioned theory. 729 *quod pugnat*, a constr. common enough in Cicero: de nat. I 75 *illud video pugnare te*; pro Sex. Rosc. 8 *si hoc solum pugnatur*: so *qui id pugnant* and the like. 733 *aborisci* seems to be found nowhere else: III 155 he has *aboriri*: Lach. compares *ulcisci pacisci nancisci proficisci* etc. 734 *illius in parte*: this use of *pars* in the sense of *locus* comes perhaps from the sense it has in *partes* or *partem suscipere*: reparari in loco illius et partem eius suscipere: the expression therefore comes to the same as Livy III 18 9 *ipse in locum vicemque consulis provolat*: but I know no parallel, as elsewhere *in parte esse* means either 'to have a share of', as Ov. ars I 566; amor. II 16 14; trist. V 14 9: or 'to be a part of', as ex Ponto II 2 104; Juv. XI 29. [But now I find in Plaut. asin. 907 *ut viginti minas Ei det, in parte hac amanti ut liceat ei potirier*: 'that he may enjoy her in his turn': where Lamb. followed by Ussing reads without cause *in partem*, which does occur ibid. 672 *Age sis tu in partem nunciam hunc delude*. Compare too Livy IV 35 6 *ad spem consulatus in partem revocandi* (see Madv. emend. Liv. 99); VII 22 9 *censuram quoque in partem vocari plebes volebat.*] 735 *vincere verbis*: 99 *Et quam difficile id mihi sit pervincere dictis*: Virg. geor. III 289 *verbis ea vincere magnum Quam sit*; but there the words are the same, the sense different. 737—747 seem to depict some pantomimic representation of the four seasons. 737 *Ven. praen.*: IV 1057 *Namque voluptatem praesagit muta cupido*, aptly cited by N. P. Howard. 738 *Pennatus*, i.e. Cupido: 1075 *Pinnigeri . . amoris*; Apul. met. IV 30 *puerum suum pinnatum illum*, and again *ut meae Veneri Cupido pinnatus adsistam tibi*; so V 22 we have the *volatilis dei pinnae roscidae*. Let the 'sibili' of Lachmann then fall on his own prosaic head. 739 *Flora* following on the steps of Zephyr, in advance of Spring, Venus and Cupid, strews the path with flowers: comp. I 7 and 11: Zephyr unlocks the winter ground and flowers at once spring up: comp. too the worship of Psyche, in the character of Venus, in Apul. IV 29. 741 *Inde loci*: see n. to 443. 742 *etesia flab. aquil.* recurs VI 730: 715 *Aut quia sunt aestate aquilones ostia contra, Anni tempore eo qui etesiae esse feruntur*. 743 *Euhius* and *euhoe* are the only well-attested spellings; probably *Euhan* should also be read; for Aen. VI 517 the best mss. have *euhantis*: Mommsen inscr. reg. Neapol. 2913 HIC . PHOEBUS . FUIT . AC . SUPERBUS . EUHAN: the Latins naturally expressed the Greek aspirate in

the middle of the word. 745 *Altitonans* here must mean merely loud-roaring, though applied to Jupiter by Cicero and Ennius it signifies thundering on high; and 'on high' is the usual force in *altivolans altisonus* and the like. 746 *bruma* may be used here in its proper sense of the shortest day: it again brings back the cold which spring had dispelled, and winter returns in earnest. 749 *certo tempore*, every day, that is: see n. to 704.

751—770: solar eclipses may be caused by the moon intercepting the rays, as the astronomers say; but some opaque and invisible body may just as well be the cause; or the sun may lose for the time his own light in passing through spots inimical to it: lunar eclipses may similarly be explained, mutatis mutandis; thus in the first case it will be the earth which keeps from it the sun's rays.—The three theories here offered to explain the eclipses of the sun and moon are quite parallel to those given just above to shew how the moon may receive her light. Epic. l. l. 96 gives us a similar choice, ἔκλειψις ἡλίου καὶ σελήνης δύναται μὲν γίνεσθαι καὶ κατὰ σβέσιν, καθάπερ καὶ παρ' ἡμῖν τοῦτο θεωρεῖται γινόμενον· καὶ δὴ καὶ κατ' ἐπιπρόσθησιν ἄλλων τινῶν, ἢ γῆς ἢ οὐρανοῦ ἤ τινος ἑτέρου τοιούτου: and Diogenes adds just below ἐν δὲ τῇ δυωδεκάτῃ περὶ φύσεως ταῦτα λέγει, καὶ τὸν ἥλιον ἐκλείπειν σελήνης ἐπισκοτούσης, σελήνην δὲ τοῦ τῆς γῆς σκιάσματος· ἀλλὰ καὶ κατ' ἀναχώρησιν. 751 comp. Virg. geor. II 478 *Defectus solis varios lunaeque labores.* *latebras* does not appear to occur elsewhere with this application. 754 *a terris*, admonished by Mr Pearman of Toronto, I take to be 'on the earthward side': a very common sense of *ab*: see n. to VI 1111 *Quattuor a ventis*; and to V 1332 *ab nervis.* *obstr. altum caput* is to put her own high head in the way of the sun, *ei*: this is not a common use of *obstruo*; but comp. Livy V 1 9 *frons in Etruriam spectans auxiliis, siqua forte inde venirent, obstruebatur.* 756 and 765 *Tempore eodem*: so 1045 *Tempore eodem alii facere id non quisse putentur.* 757 *Corpus quod* cet.: comp. 717—719. 758 comp. 652 *atque suos efflavit languidus ignis.* 761 *interstingui*, a very rare word, hardly occurring elsewhere in classical Latin, unless in Apul. met. IV 12. 763 *super* = insuper: see n. to I 649. 764 *rigidas.. umbras*: old poet in Cic. Tusc. I 37 *ubi rigida constat crassa caligo inferum*: 'even darkness which may be felt'. *coni*, the cone of the earth's shadow; so that *coni* would seem to define the *umbras*, as 369 *pericli* does the *cladem*: considering what Epicurus' and Lucretius' conceptions were of the shape of the earth, they must surely have blindly accepted from astronomers this fact of its conical shadow: the force of *Menstrua* is not at once apparent, as she has to pass most months without any eclipse; yet these do depend on her monthly revolution; and if her orbit lay in the plane of the ecliptic, there would of course be an eclipse every full moon. 765 *succurrere* = succedere, used in this its literal sense is almost or quite unexampled; Forc. compares

its metaphorical use in Cic. pro Sex. Roscio 31. 768 *Et tamen*: see n. to 1177 and I 1050. 769 *Cur* cet. as 758 foll. of the sun. 770 *per*: see n. to I 841 *Ignibus ex.*

771—782: having thus explained how all that goes on above in the heaven may take place, the movements of sun and moon and their eclipses, I now come back to the infancy of the world and the earth and proceed to shew what then came to pass. 773 *quicquid* = quicque, as so often in Lucr. *resolvi*: VI 46 *Pleraque ressolui*, where he is talking of the same questions: a rare use of the word, not unlike that in Quintil. inst. VII 9 14 *nec refert quomodo sit facta amphibolia aut quo resolvatur.* 774 Virgil says obscurely *caelique vias* and *caelique meatus*, with reference probably to this passage. 776 *offecto*: see n. to II 156 *Officiuntur.* 777 *neque opinantis*: in 3 other places he uses the more usual *nec opin.*: *neque opinans*, which appears to be very rare, occurs more than once in the bell. Alexandr. and the more homely bell. Africae: see Nipperdey Caes. p. 27, who refers to the epist. ad Brutum I 4 4: it is found too in Lucil. IV 41 Muell. 779 *convisunt* keeps up the metaphor of *conivent* and *aperto lumine*: II 357 *Omnia convisens oculis loca.* 780 *Nunc redeo* cet. from which he had digressed after 501. 781 *in lum. oras* cet.: see n. to 212 and Virgil there quoted. 782 *crerint* = decrerint, is somewhat archaic and used by Cicero in imitating old legal language: yet Catull. 64 150 *germanum amittere crevi.* Aen. XI 560 *quae nunc dubiis committitur auris.*

783—820: first herbage sprang up, then trees, then living things; in the newness of creation the earth produced the larger creatures, birds first, even as now it produces spontaneously worms and the like; then lastly man, whom it fed from its pores with a moisture resembling milk: in the perpetual spring of the new world the children needed nothing more than what the earth thus supplied. 783 *Principio* cet.: in their account of the first production of things the early philosophers would be likely to agree more or less: Zeller says that Anaximander, Parmenides, Anaxagoras, Diogenes of Apollonia and Democritus, all taught the procreation of living things from earth. Lucr. probably had a special eye to Empedocles; thus we are told in Plut. de plac. phil. v 26 and Galen that Empedocles πρῶτα τῶν ζώων τὰ δένδρα ἐκ γῆς ἀναδῦναί φησι, plants with him being imperfect animals. Virgil in geor. II has frequent allusions to Lucr. in return: comp. too the conclusion of his brief epicurean cosmogony, ecl. VI 39 *Incipiant silvae cum primum surgere, cumque Rara per ignaros errent animalia montis.* 786 *per auras* cet.: Virg. geor. II 363 *dum se laetus ad auras Palmes agit laxis per purum immissus habenis.* 788 and 790 *primum* seems to have this force: birds have the rudiments of feathers, quadrupeds have hairs or bristles as soon as they are born before they begin to perform any of the functions of life; so the earth as soon as formed began to put forth its hairs or feathers,

herbage and plants, before it yielded any other production. 791 *mortalia saecla* here = 793 *animalia*, every living thing. 793 *Nam neque* cet. in refutation of the stoical belief: II 1153 *Haud, ut opinor, enim mortalia saecla superne Aurea de caelo demisit funis in arva.* 795 *merito* cet.: comp. 821, and II 998 *Quapropter merito maternum nomen adepta est*: he loves to inculcate this truth. 797 *Multaque* cet.: this too he is fond of dwelling upon, as an important confirmation of his theory as to the beginning of sense and life: II 871 *Quippe videre licet vivos existere vermes Stercore de taetro* cet. and elsewhere. 800 *nova*, when their powers were in their vigorous freshness: 907 *tellure nova caeloque recenti.* 801 *gen. al. var. vol.*: another poetical tautology; repeated 1078. 802 *tempore verno*: comp. 818 819: there was then perpetual spring; *ver illud erat, ver magnus agebat Orbis.* 803 *Folliculos*: this word, meaning originally a small sack, is used for any light envelope rind or husk. *teretis*: comp. IV 58 *Cum teretis ponunt tunicas aestate cicadae*, and n. to I 35. 804 *victum vitamque* recurs 1080; and is found in Cic. Brut. 95; de leg. III 32: Nepos Alcib. I 3 *splendidus non minus in vita quam victu*; [Cic. epist. III 10 9 *delectatio vitae atque victus*; VII 23 4 *vitae victusque nostri*; IX 24 3 *ad communitatem vitae atque victus*; Plaut. capt. 492 *victu et vita.*] 805 *mortalia saecla* is here of course men, of whom as distinguished from all other living things he continues to speak to the end of the paragraph. Lach. strangely misunderstands and corrupts the passage: it is true that 791 *mortalia saecla* means all living things; and so it does probably II 1153; but Lucr. has never any hesitation in using a word or phrase in different senses, when the language permits him to do so, and he quite disregards any consequent ambiguity. *mortalia saecla* is generally with him synonymous with *mortales*; as 988 *mortalia saecla Dulcia linquebant labentis lumina vitae*; 1169 *divom mortalia saecla Egregias animo facies vigilante videbant*; 1238 *se temnunt mortalia saecla.* Euripides in a well-known fragment of the Melanippe keeps the same order as Lucr.: earth and ether Τίκτουσι πάντα κἀνέδωκαν εἰς φάος, Δένδρη πετεινὰ θῆρας οὕς θ' ἅλμη τρέφει, Γένος τε θνητῶν, which may have suggested to Lucr. his *mortalia saecla*, as he was so familiar with Euripides. 806 *umor superabat*: Virg. geor. II 331 *superat tener omnibus umor*: the long epicurean cosmogony in Diod. Sic. I 7 is well worth comparing with this part of Lucr. 808 *uteri*: Censorin. de die nat. 4 9 *Democrito vero Abderitae ex aqua limoque primum visum esse homines procreatos. nec longe secus Epicurus; is enim credidit limo calefacto uteros nescio quos radicibus terrae cohaerentes primum increvisse et infantibus ex se editis ingenitum lactis umorem natura ministrante praebuisse, quos ita educatos et adultos genus hominum propagasse.* *apti*=adepti: so I 448 and VI 1235 *apisci.* Nonius p. 234 quotes instances of *aptus* thus used from Accius Pacuvius Lucilius: add Plaut. capt. 775 *hereditatem sum aptus.* 809

aestus seems to be the commotion caused by the growing size and consequent heat of the infant; Marullus' *aetas* is possibly right. 810 *petessens*: see n. to III 648 *caedesque petessit.* 811 *ibi* Creech refers to 809 *ubi*: in which case it must be temporal, 'thereupon'; but comp. 815 *Impetus in mammas convertitur*; so that it is better to make *ibi* mean, to the spot where the infants lay, to the opened womb; and Lambinus' *ibus* is not needed. 815 *Impetus ille* which went to feed the child before it was born. With this description comp. Diog. Laert. II 17 γεννᾶσθαι δέ φησι [Ἀρχέλαος] τὰ ζῷα ἐκ θερμῆς τῆς γῆς καὶ ἰλὺν παραπλησίαν γάλακτι οἷον τροφὴν ἀνιείσης· οὕτω δὲ καὶ τοὺς ἀνθρώπους ποιῆσαι. 816 Wak. well compares the rhythm of Ovid ars II 475 *Silva domus fuerat, cibus herba, cubilia frondes*: for there are other traces of imitation of Lucr. in this part of Ovid. 818 foll.: comp. Virg. geor. II 336 *Non alios prima crescentis origine mundi Inluxisse dies aliumve habuisse tenorem Crediderim: ver illud erat, ver magnus agebat Orbis et hibernis parcebant flatibus euri, Cum primae lucem pecudes hausere virumque Terrea progenies duris caput extulit arvis . . Nec res hunc tenerae possent perferre laborem, Si non tanta quies iret frigusque caloremque Inter.* 820 *Omnia enim*, and therefore cold and heat and winds too. *rob. sum.*: 895 and Ov. trist. v 2 7.

821—836: thus mother earth produced in the beginning every kind of living thing, till she left off bearing from age; for she and the world change like everything else: all things have a time of vigour and decay. 821 *etiam atque etiam*, I cannot too often repeat this. 823 *animal* is nowhere else used by Lucr. in the sing. as a subst.: *animans* is his word: and here *omne animal* seems equivalent to *omnia animalia*: he says *animalem formam, animale genus, corpus*; but *animantum genus, natura, saecla, volgum turbamque* and the like: see notes 1 to IV 740 *talis natura animantis. fudit*: 917 *tellus animalia fudit*; Virg. geor. I 13 *Fudit equom magno tellus percussa tridenti*; Aen. VIII 138 *quem candida Maia...fudit.* 825 *Aerias*: I 12 *Aeriae primum volucres. variantibu' formis*, as he elsewhere uses *variae*, simply to express the different species: see n. to I 589; and comp. just above 786 *Arboribus variis.* 827 *Destitit* cet.: II 1150 *effetaque tellus Vix animalia parva creat quae cuncta creavit Saecla deditque ferarum ingentia corpora partu*; Diod. Sic. I 7 6 τὴν δὲ γῆν ἀεὶ μᾶλλον στερεουμένην ὑπό τε τοῦ περὶ τὸν ἥλιον πυρὸς καὶ τῶν πνευμάτων τὸ τελευταῖον μηκέτι δύνασθαι μηδὲν τῶν μειζόνων ζωογονεῖν κ.τ.λ.: [comp. Mayor Juv. XV 69 and 70.] *spatio def. vet.*: comp. II 1174 *spatio aetatis defessa vetusto*, and n. there. 828 829 comp. 834 835. 831 *vertere*: see n. to III 502 *reflexit.* 832 *Namque* cet.: II 77 *Augescunt aliae gentes, aliae minuuntur* cet. 835 *ex alio—alter* = 829 *Ex alio alius*: see n. to IV 689 *Est alio—alter.* 836 is in apposition with what precedes: the earth ceases to be fit for one function in order to be fit for another: the decrease of one thing is needed for the increase

of another. *pote* could hardly stand for *potuit*: *ferre* is understood to *nequit* and *possit* from *tulit*. The stoical moral is as usual much the same as the epicurean: M. Anton. IX 28 ταὐτά ἐστι τὰ τοῦ κόσμου ἐγκύκλια, ἄνω κάτω, ἐξ αἰῶνος εἰς αἰῶνα.

837—854: at first the earth tried to produce monsters of all kinds, half-men half-women, creatures without feet or without hands or mouths, or with limbs not separated; so that they could not grow up nor continue their kind: they all therefore perished off. 839 *Androgynum*: Livy XXVII 11 4 *et Sinuessae natum ambiguo inter marem ac feminam sexu infantem, quos androgynos vulgus, ut pleraque, faciliore ad duplicanda verba Graeco sermone, appellat*; but XXXIX 22 5 he uses the Latin compound *semimarem*; as does Ov. met. IV 381, who also calls it *semivir* and *hermaphroditus* which became the usual name. *interutrasque*: see n. to II 518. *nec utrum* i.e. neutrum; as IV 1217 *neque utrum*: see n. there and to II 23. Ov. met. IV 378 *nec femina dici Nec puer ut possint; neutrumque et utrumque videntur*; Mart. XIV 174 *Masculus intravit fontes, emersit utrumque*: comp. too Hor. epist. I 18 9 *medium vitiorum et utrimque reductum*. Lucr. in this passage imitates and partly refutes Empedocles: 238 Πολλὰ μὲν ἀμφιπρόσωπα καὶ ἀμφίστερν' ἐφύοντο, Βουγενῆ ἀνδρόπρωρα, τὰ δ' ἔμπαλιν ἐξανέτελλον Ἀνδροφυῆ βούκρανα, μεμιγμένα τῇ μὲν ἀπ' ἀνδρῶν, Τῇ δὲ γυναικοφυῆ, σκιεροῖς ἠσκημένα γυίοις: with the beginning and end of this passage Lucr. is quite in accord; the Βουγενῆ—βούκρανα he wholly disallows, as we shall see 878 foll. where he triumphantly refutes such notions. The βουγενῆ ἀνδρόπρωρα was very famous: the great champion of the final cause Aristotle phys. II 8 and his commentators Themistius and Simplicius assail it.
840 *Orba pedum partim*: Virg. geor. IV 310 *Trunca pedum primo*. *manuum*: the gen. after *viduata* is strange, and apparently after the analogy of adjectives like in meaning, *expers* etc.; though II 843 he has *secreta teporis*: it is possible that the εὔνιδες ὤμων of Empedocles 233, whom he here imitates, may have suggested the genitive. [Comp. Silius VIII 590 *desolataeque virorum Eridani gentes*: and see Draeger hist. synt. I p. 454.] 840 841 here too Lucr. seems to be imitating the manner of Empedocles, while differing entirely in the matter: 232 Ἧι πολλαὶ μὲν κόρσαι ἀναύχενες ἐβλάστησαν. Γυμνοὶ δ' ἐπλάζοντο βραχίονες εὔνιδες ὤμων, Ὄμματά τ' οἶα πλανᾶτο πενητεύοντα μετώπων: such a wandering about of single organs and limbs and their subsequent union Lucr. would have thought absurd; for Empedocles continues Αὐτὰρ ἐπεὶ κατὰ μεῖζον ἐμίσγετο δαίμονι δαίμων, Ταῦτά τε συμπίπτεσκον ὅπῃ συνέκυρσεν ἕκαστα, Ἄλλα τε πρὸς τοῖς πολλὰ διηνεκὲς ἐξεγένοντο: and so Censorinus 4 7 *Empedocles autem egregio suo carmine, quod eiusmodi esse praedicat Lucretius ut vix humana videatur stirpe creatus, tale quiddam confirmat. primo membra singula ex terra quasi praegnate passim edita deinde coisse et effecisse solidi hominis materiam igni simul et umore per-*

mixtam. 844 *quod for. us.*: see n. to IV 831 *quae foret usus.* 846 *absterruit* has the same force as IV 1234 *cuiquam Absterrent* and 1064 *Absterrere sibi*, where see note. 847 comp. I 564 *quibus possint aevi contingere florem.* 849 *debere*, the sole instance in Lucretius of a hypermetrical v.; once only too, IV 741 *equi atque*, he elides an iambus: both these licences are far commoner in Virgil. The elision at the end of a v. is absolutely unknown to Homer: indeed οὐκ οἶδ' in an epigram of Callimachus seems the only certain instance in Greek hexameter verse. Whoever, Greek or Latin, introduced the practice, must have done it through misapprehending Homer; for surely his verse is a dactylic hexam. catal. 850 and 856 *procudere*: see n. to II 1115. 852 *remissis* gives an excellent sense: IV 1114 *Membra voluptatis dum vi labefacta liquescunt*: comp. its use in Prop. V (IV) 8 53; Ov. her. XIX 197; met. IV 229; Sen. Oed. 442 *Thyiades oestro membra remissae*; Thyest. 634 *si metu corpus rigens Remittet artus.* 853 *habere* i.e. utrumque: *uterque* is in the dependent clause according to a favourite habit of Lucr.: see n. to I 15 *capta . . quamque.* With the constr. *ut sint—habereque* comp. 446 *Hoc est, a terris altum secernere caelum, Et sorsum mare uti secreto umore pateret.*

855—877: many races of regularly organised creatures must have died off, because they wanted either some natural power by which to protect themselves, or could not be turned to use by man and be saved thereby: these fell a prey to others and disappeared, unable to endure the struggle for existence. 855 *animantum* are opposed to the monstrous abortions last spoken of: it was not a natural unfitness for life, but outward circumstances that prevented their continuance. Granting Lucretius the premisses from which he starts, his subsequent deductions are eminently able and logical. 856 *prŏpagando*, 850 *prōpagando*: he has ŏ five times, ō twice; but always the subst. *prŏpago*: VI 1027 *prŏpellat*, 1029 *prōpellat*; II 276 *rĕfrenavit*, 283 *rĕfrenatur*: he appears to seek variety of this kind. *prolem*, their breed or race=850 *saecla.* 857 *vesci vit. au.*: see n. to 72 *vesci*: Aen. I 546 *si vescitur aura Aetheria.* 858 *denique* here is not a mere idiomatical redundancy as in I 278 and the passages there cited, but means, 'at least'; if no higher quality, well then agility: Hor. sat. I 2 133 *Ne nummi pereant aut puga aut denique fama*; Caes. bell. Gall. II 33 2 *nostros praesidia deducturos aut denique indiligentius servaturos crediderant.* 860 *ex util. manent* is probably imitated in the culex 64 *lapidum nec fulgor in ulla Cognitus utilitate manet*, as what precedes and follows abounds in paraphrases of Lucr. 862 *genus acre le.*: Ov. fasti IV 215 *cur huic genus acre, leones* cet.: a passage shewing much imitation of II 600 foll.: Virg. geor. III 264 *genus acre luporum*, II 151 *saeva leonum Semina.* 864 *levisomna*, an elegant ἅπαξ λεγόμ. *cum pect.*: see n. to I 755. 865 *veterino*: 890 *veterino semine equorum*: see Forc. s. v. 866 comp. VI 1237 *Lanigeras tamquam pecudes et bucera saecla*; II 662 *Lanigerae*

pecudes et equorum duellica proles Buceriaeque greges; Ov. met. VI 395 *Lanigerosque greges armentaque bucera.* 869 *pab. parta* are accus. 873 *quare*=quamobrem, or ut ob eam rem: II 970 *quorum*=ita ut eorum; IV 116 *quorum*=ut eorum; V 3 *qui*=ut is; VI 821 *quo simul ac*=et, simul atque eo: Livy XXIX 15 13 *nihil se, quare perire merito deberent, admisisse.* 875 *praed. luc. iac.*: Sen. Herc. Fur. 1186 *Cui praeda iacui*? [Livy XXVII 44 4 *castra invadere praedae relicta.*] N. P. Howard compares Homer's ἕλωρ καὶ κύρμα.

878—924: but centaurs and the like with twofold natures cannot exist: the horse has reached maturity when the boy is scarcely yet weaned; and is worn out ere the other is grown to manhood: and so with Scyllas, half-maid half-fish: then since fire burns lions like other creatures, how can a chimera exist breathing out flame: earth in its freshness produced many things, but not these figments of poets or philosophers.—This passage is extremely well and acutely reasoned out: he covertly refutes Empedocles' notion of the βουγενῆ ἀνδρόπρωρα and the ἀνδροφυῆ βούκρανα which are as impossible as the centaurs Scyllas and chimeras of the poets. The man-woman or hermaphrodite is possible enough, because the natures of man and woman are not incompatible; and doubtless it and other monstrous things tried at first to continue existence; but the creatures here described never could begin to come into being. 881 *potissit*: see n. to I 665 *potesse*. 882 occurred IV 53. 885 *Ub. mam. qu.*: Ov. met. VII 321 *lactantiaque ubera quaerit.* 886 and 896 *aet. sen.*: see n. to III 772. 888 *puero illi*, the *puer* of 884. 889 comp. Aen. VIII 160 *Tum mihi prima genas vestibat flore iuventa*: and X 324: *lan. malas* occurs in Ovid more than once. 891 *Confieri, esse*: Lucr. is fond of such unions; III 787 *crescat et insit*; 788 *oriri, esse*; 791 *esse, innasci*; 795 *esse et crescere*; 797 *durare genique*: and here *Conf. et esse* would be more natural; but *neque* connects the two inseparable notions just as in Aen. XI 43 *Invidit fortuna mihi ne regna videres Nostra neque ad sedes victor veherere paternas*: comp. too Ov. met. III 116 *Ne cape . . nec te civilibus insere bellis*, 'don't take, and so get involved in civil war': Hor. od. I 11 1 *Tu ne quaesieris . . nec Temptaris* cet. i.e. temptando: comp. too I 479 *constare neque esse* and the often recurring *Non radii solis neque lucida tela diei.* 892 *rabidis* cet.: Wak. compares Sen. Med. 350 *Siculi virgo Pelori Rabidos utero succincta canes*; Ov. amores III 12 21 *Scylla...Pube premit rabidos inguinibusque canes.* *succinctas*: comp. Tib. (Lygd.) III 4 89; Virg. ecl. VI 75. 894 *discordia*: Lach. after Heinsius quotes Colum. VI 36 2 *ut discordantem utero suo generis alieni stirpem insitam facile recipiat ac perferat.* 897 *unis*: see n. to III 616; and Cic. pro Flacco 63 *unis moribus*, quoted to II 159 *ipsa, una.* 898 *neque sunt* i.e. iis: comp. n. to I 718. 899 *cicuta* cet.: see n. to IV 641, where hellebore is said to do the same, and passages there quoted. 905 906 translated from

Il. Z 181 Πρόσθε λέων, ὄπιθεν δὲ δράκων, μέσση δὲ χίμαιρα Δεινὸν ἀποπνείουσα πυρὸς μένος αἰθομένοιο. 906 *Ore foras* occurs four times in Lucr. 907 comp. Juvenal VI 11 *Quippe aliter tunc orbe novo caeloque recenti.* 908 *qui fingit*: he must allude chiefly to Empedocles, as we have shewn above: for the βουγενῆ ἀνδρόπρωρα is so much spoken of that we must have heard, had any other physiologist of note held similar language: II 700 *Nec tamen omnimodis conecti* cet. he touches on the same question as here, 702 centaurs, *Semiferas hominum species*, 704 Scyllas, *conecti terrestria membra marinis*, 705 *flammam taetro spirantis ore Chimaeras.* 911 *Aurea tum dicat* cet.: yet Virgil ventures to say *atque auro plurima fluxit*, which may be an unconscious reminiscence of Lucr. 913 *impete*: see n. to IV 416. 913 foll. comp. I 199 *cur homines tantos natura parare Non potuit, pedibus qui pontum per vada possent Transire* cet. 919 *compactaque*, as 880. 921 is made up of I 889 *Herbarum genera et fruges*, and II 699 *Humanum genus et fruges arbustaque laeta.* 922 *complexa* is of course passive, as II 154 *complexa meant inter se*; just like *implexus perplexus*: Cic. pro Sex. Rosc. 37 *quo uno maleficio scelera omnia complexa esse videantur*; Vitruv. X 2 (6) 11 *complectit et compegit*; [Plaut. Amph. 286 *Qui conplexus cum Alcumena cubat.*] 923 *Sed res quaeque* cet.: comp. II 718 *Sed ne forte putes animalia sola teneri Legibus hisce, ea res ratio disterminat omnis. Nam veluti tota natura dissimiles sunt Inter se genitae res quaeque, ita quamque necessest* cet. which seems to confirm *res* in our passage.

925—987: but men were then much hardier than they are now: they lived like the beasts of the field; ignorant of tillage, they fed on what the earth supplied of itself, acorns and berries; and drank of the running waters: they were without fire or clothes or houses, without law government or marriage: they slept on the ground, not fearing the dark, to which they had been used from childhood; they rather dreaded real danger from the fiercest beasts. 926 *Durius* cet.: Virgil's *homines durum genus* and *Terrea progenies. quod* is of course the relative, = *quippe quod* cet. or *ut pote a tellure productum* as Creech interprets. 928 *Fundatum* cet.: IV 827 *fastigia posse Surarum ac feminum pedibus fundata plicari, Bracchia tum porro validis ex apta lacertis*: Arnob. II 16 imitates Lucr. as his wont is. 931 *volventia*: VI 345 *Omnia coniciens in eum volventia cursum*: Virgil has *volventia plaustra, volventibus annis*; culex 161 *volvens*, 193 *volventia membra draconis*; Ovid *volventem annum*: [comp. Livy ap. Sen. rhet. suas. VI 17 *caeco volvente fluctu*; Cic. pro Quinct. 40 *anno vertente*; Plaut. asin. 400 *quassanti capite*, to which Ussing cites Bacch. 301 *capitibus quassantibus*; Caecil. 271 *quassante capite.* See Roby gramm. pt. II p. LXVII at top.] '*Volventia*=quae volvuntur: Virg. *saxa rotantia*; Cic. de fin. II 31 *voluptate, stante an movente*: so *pascentes capellas*; *vehens invehens praetervehens*; Sall. Iug. 79 6 and 93 4 *gignentium*: Caes. bell. Gall. III 12 1 may not

minuente aestu be so explained?' R. Shilleto. 932 *Volgivago*: IV 1071 *Volgivagaque vagus Venere.* 934 *scibat*: he has *scibant* thrice, *accibant*, *saevibat*, *hauribant*, *poenibat*, the last in VI 1241, all the rest in the latter part of this book. *mol. arva*: Virg. geor. I 494 *incurvo terram molitus aratro*: Aen. VII 157 *humili designat moenia fossa Moliturque locum*, the word appears to have pretty much the same force, 'carefully prepares for the purpose in hand.' 935 *Nec nova* cet.: 1366 *Et nova defodere in terram virgulta per agros.* 937 *Quod sol* cet.: Macrob. sat. VI 1 65 compares Virg. geor. II 500 *Quos rami fructus, quos ipsa volentia rura Sponte tulere sua, carpsit.* 938 *plac. pec.*: Horace more coarsely sat. II 2 17 *cum sale panis Latrantem stomachum bene leniet*; 8 5 *Quae prima iratum ventrem placaverit esca.* 939 *cur. cor.*: II 31 *iucunde corpora curant*: acorns and arbute berries are thus joined by Virg. geor. I 148 *cum iam glandes atque arbuta sacrae Deficerent silvae et victum Dodona negaret*; and Ov. met. I 102 *per se dabat omnia tellus... Arbuteos fetus.. Et quae deciderant patula Iovis arbore glandes.* 940 *nunc hiberno tempore* cet.: and at the present day in December you may see large tracts of the Peloponnese covered with the arbute trees laden with their bright scarlet fruit. 944 *ampla*: Wak. quotes Hor. sat. II 2 101 *Divitiasque habeo tribus amplas regibus.* 946 *decursus aquai* or *aquarum* is a favourite phrase which he uses four times. 947 *Claru' citat* is a very graphic expression: the clear rills tumbling down from the high hills in those climates are audible from a great distance, especially *Per loca pastorum deserta atque otia dia*: Lach. in his sarcastic and most unsatisfactory note says 'feras decursum aquae, qui vix audiri potest, frustra clare audire iubet'. Whatever it may be with the waters from the high hills of Berlin, those from the hills of Greece and Italy can be heard far enough. Ritschl opusc. II 434 shews that *Clarigitat* of Lach. is not legitimately formed from *clarigo*, and, if it were, that *clarigo*, which denotes in Pliny's words an ambassador's 'res raptas clare repetere' from an enemy, ill suits our passage. But I must say he quite fails to convince me when he reads *largus* for *clarus* 'quod non ea est decurrendi notio quae suapte natura cum auditione coniuncta sit, ut cum *vox clara* vel *tuba* dicitur cet.': to me the point of the passage greatly depends on *clarus*: it means, to use Cicero's words, pro Cluent. 134, 'clara voce, ut omnis contio audire possit' ciere: Hor. od. III 13 15 *unde loquaces Lymphae desiliunt tuae*; epod. 16 47 *montibus altis Levis crepante lympha desilit pede*, are almost comments on Lucr.: surely there 'decurrendi notio cum auditione coniuncta est': then is not *largus* weak, followed in 950 by *proluvie larga*? and the alliteration of moment? *Claru'*: Aen. VII 141 *ter caelo clarus ab alto Intonuit.*

948 *silv. templa Nymph.* must be such rocky haunts as he describes IV 580 *Haec loca capripedes satyros nymphasque tenere Finitimi fingunt* cet. and as Virgil paints in Aen. I 166 *Fronte sub adversa scopulis pen-*

dentibus antrum, Intus aquae dulces vivoque sedilia saxo, Nympharum domus: *templa* here, like *Acherusia templa*, *mentis templa*, is a secondary meaning derived from the primary *caelestia templa*: Theocr. id. VII 136 τὸ δ' ἐγγύθεν ἱερὸν ὕδωρ Νυμφᾶν ἐξ ἄντροιο κατειβόμενον κελάρυζεν: comp. too Pacuv. 309 *scrupea saxa Bacchi Templa prope adgredite*. 950 *um. saxa*, *Um. sa.*: see n. to II 955; and notice the fine effect of this repetition and the alliteration of the liquids *l* and *r*. 955 *Sed nemora* cet.: 992 *Et nemora ac montis gemitu silvasque replebat*: see n. to 41 *Per nemora ac montes magnos silvasque profundas*. 958 *neque ullis Moribus* cet.: Aen. VIII 316 *Quis neque mos neque cultus erat*, amid other traces of imitation; and with this v. and 961 *Sponte sua* cet. Aen. VII 203 *Saturni gentem, haut vinclo nec legibus aequam, Sponte sua veterisque dei se more tenentem*. 965 see n. to III 551. 968 *pon. cl.*: Sen. Herc. Oet. 787 *clavae pondus*; [Silius II 246 *nodosae pondera clavae*.] 969 *pauca*: 985 *Spumigeri suis adventu validique leonis*. 970 *sic* = sicut erant: comp. Ov. fasti VI 331 *Vesta iacet placidamque capit secura quietem, Sicut erat, positum caespite fulta caput*: so Aen. I 225 *sic vertice caeli Constitit*, *sic* = sicut erat i.e. *Despiciens mare* cet. where Conington refers to VII 668 *sic regia tecta subibat*, i.e. *pedes, tegumen torquens* cet.: but at the same time it may have the other meaning into which this so readily passes, '*sic* pro leviter et negligenter, quod Graeci οὕτως dicunt' Donatus to Ter. Andr. 175: thus in Ovid l. l. *Sicut erat* = sic temere: *sic* will then have much the force of Horace's *sic temere, positum sic*; of Sen. Hipp. 394 *Sic temere iactae comae*; of Persius' *sic poeta prodirem*; of the mimetic οὕτως in Greek; and of *sic* in many passages of Plautus and Terence, as Amphitr. 117 *ego huc processi sic cum servili schema*. 973 *Nec plangore* cet.: the stoic Manilius, who often attempts while imitating to refute Lucr., appears to allude to this passage in I 66 *Nam rudis ante illos nullo discrimine vita...Tum velut amissis maerens, tum laeta renatis Sideribus; variosque dies incertaque noctis Tempora, nec similis umbras iam sole regresso, Iam propiore, suis poterant discernere causis*: Lucr. is assuredly the more reasonable: Stat. Theb. IV 282 foll. harps on the same theme: *Hi lucis stupuisse vices noctisque feruntur Nubila et occiduum longe Titana secuti Desperasse diem*; so that Lucr. on his part is probably assailing some well-known theory. 975 *respectabant* = expectabant: VI 1234 *Funera respectans*; Catull. 11 21 *Nec meum respectet, ut ante, amorem*; Cic. pro Planc. 45. *som. sep.*: see n. to I 133 *somnoque sepultis*.

979 *Non erat ut fieri posset* = non poterat fieri: see n. to I 620 *Nil erit ut distet*. *mirarier, diffidere*, as so often in Lucr. = nomin. subst.: see n. to I 331 *Quod tibi cognosse*. 983 *Infestam fac.*: 1124 *iter infestum fecere viai*: it is a favourite phrase of Livy; who also has *infestum efficere, reddere, habere*. 985 *validique*: see n. to II 825 *uno varioque*; the plur. *Hospitibus* is in favour of the *que* of mss. 986 *intempesta*:

see Conington to geor. I 247; and comp. Apul. met. II 25 *cum ecce crepusculum et nox provecta et nox altior et dein concubia altiora et iam nox intempesta.*

988—1010: men then died much about the same as now: here and there they were mangled by wild beasts and perished from want of help; but then many thousands did not fall in battle in a single day; ships too and therefore shipwrecks were unknown; want and ignorance then caused some deaths; as now do luxury and malice.
988 *nimio plus* is generally used absolutely for 'too much'; but sometimes comparatively as here; Plaut. Bacch. 122 *Quem sapere nimio censui plus quam Thalem*: 150 *nimio satiust*; Livy I 2 3 *nimio plus quam satis tutum esset*; II 37 4 *nimio plus quam velim*; XXIX 33 4 *nimio maior*: Lucr. VI 1196 *Nec nimio post*: see Draeger hist. synt. I p. 521 at top. *mortalia saecla* = mortales, as 805, where see note, 1169 and 1238. 989 *linq. lum. vitae*: III 542 *Lumina qui lincunt*; 1025 *Lumina...reliquit*; Cic. de suo cons. 24 *vitalia lumina liquit*; frag. de glor. *lumina linquens*; Naev. 31 *lino lincunt lumina.* 993 *Viva* cet.: Accius 226 *natis sepulcro ipse est parens*; Ov. met. VI 664 *Egerere inde dapes demersaque viscera gestit: Flet modo seque vocat bustum miserabile nati*; XIII 865 *Viscera viva traham*; XV 525 *Viscera viva trahi*; Enn. ann. 141 *Vulturus...miserum mandebat homonem. Heu quam crudeli condebat membra sepulcro*; Spenser fa. qu. II 8 16 *To be entombed in the raven or the kight*; [Macbeth III 4 72 *our monuments Shall be the maws of kites*: see Furness var. n.;] Pope essay III 162 *Of half that live the butcher and the tomb*: before them all Gorgias γύπες ἔμψυχοι τάφοι. There is no reason for understanding *viscera* in any but the sense it always has in Lucr. viz. the flesh, or all between the skin and bones, either here or Tusc. II 34: this sense it has too in Ovid l. l.: *v* often in alliteration expresses indignant pity; as Aen. VI 833; Cic. pro Sest. 48 *fortissimum virum, ne videret victorem vivus inimicum, eadem sibi manu vitam exhausisse*, and just before this the same effect is produced by the union of *p* and *v*: 59 *vivus, ut aiunt, est et videns cum victu ac vestitu suo publicatus.* 997 *Donique* as 708, 723 and II 1116: the pluperf. after *donec* is quite unexampled in Lucr.: perhaps *privarunt* should be read, unless the pluperf. is caused by the attraction of *servarat* and *accibant.* *vermina*: Paulus Fest. p. 374 '*vermina* dicuntur dolores corporis cum quodam minuto motu quasi a vermibus scindatur. hic dolor Graece στρόφος dicitur'. 998 *vellent* i.e. poscerent: Bentl. compares Sil. XI 166 *medicinam vulnera poscunt.* 999 *sub signis ducta*: Cic. ad Att. XVI 8 2 *Antonium cum legione Alaudarum ad urbem pergere...legionem sub signis ducere*; Plaut. Pseud. 761 *Omnis ordine ego sub signis ducam legiones meas Ave sinistra*: it means ready for battle; and is a very favourite expression of Livy; who also says *sub signis venire, incedere, subire, irrumpere, in acie stare, urbem intrare*: Tac. hist. III 63 *non*

sine decore, sed sub signis vexillisque: [comp. Marquardt R. St. II p. 350: the soldier followed after (*sub*) the *signa*.] **1000** comp. 95 *Una dies dabit exitio*: Ov. fasti II 236 *Ad bellum missos perdidit una dies*; Enn. ann. 297 [*Milia*] *multa dies in bello conficit unus.* **1001** N. P. Howard appositely quotes Labb. gloss. 'lido κρούω, laedo βλάπτω' in support of the ms. *lidebant*: I strongly incline now to think he is right; as Lucr. prob. had in mind Accius 33 *Flucti immisericordes iacere taetra ad saxa adlidere*: [*allido* seems the regular word: Caes. b. civ. III 27 2 *pars ad scopulos allisa interficeretur.*] **1002** *temere* cet.: see II 1060 and n. there. **1003** *minas pon.*: Prop. IV (III) 10 6 *Ponat et in sicco molliter unda minas.* **1004 1005** comp. II 559 *Subdola cum ridet placidi pellacia ponti.* **1006** I keep, as I have corrected it: for Manil. I 87 *Et vagus in caecum penetravit navita pontum*, seems a reminiscence of Lucr. **1007** *Tum deinde*: see n. to III 529: Sen. epist. 101 4 *tum deinde*; 95 35, 115 4 and Val. Flacc. VIII 109 *tunc deinde*; Sen. epist. 74 23 and 117 1 *deinde tunc.* **1008** *copia mersat*: VI 1176 *sitis arida corpora mersans* is another bold application of this word: *mergo* is used as *merso* here; see Mayor to Juv. x 57. **1010** *nurui*, for the sake of her money; Juv. XIV 220 *Elatam iam crede nurum, si limina vestra Mortifera cum dote subit*: *nuptae* would do as well for the sense; or *patri*: Varro sat. men. 496 Buech. *nunc quis patrem decem annorum natus non modo aufert sed tollit—nisi veneno*; Sen. epist. 119 6 *quia propter illas nulli venenum filius, nulli uxor impegit*; or *matri*: Hor. sat. II 3 131 *Cum laqueo uxorem interemis matremque veneno*: but the ductus litterarum is in favour of *nurui*. *ipsi*, which as a nomin. is quite meaningless, thus gains much point, adding at the same time emphasis and denoting 'in the stead of': comp. VI 659 *oculos invadit in ipsos*; 1126 *Aut in aquas cadit aut fruges persidit in ipsas*; Livy I 37 2 *cum hostem effugissent, in flumine ipso periere*; XXVII 13 5 *omitto ex quibus gloriari potestis: cuius et ipsius pudere ac paenitere vos oportet, referam*; perhaps Aen. V 410 *Quid si quis caestus ipsius et Herculis arma Vidisset*: or it may mean 'to her to whom it least should be given': Aen. XI 557 *Alma, tibi hanc...Ipse pater famulam voveo*; and with one or other of these meanings it may join that of singling her out of all people; comp. IV 651 *ipsoque palato*; 1044 and VI 1207 *partis genitalis corporis ipsas*; VI 1175 *ipso ore patente*, and n. there: Ov. met. I 694 *Ortygiam studiis ipsaque colebat Virginitate deam.*

[The following sentences are extracted from a correspondence dated April 1884 with Professor Palmer of Dublin. Prof. Palmer had conjectured *medici nunc dant sollertius usi*: see Hermathena vol. V p. 306. 'Your suggestion is very attractive. I have long thought that *ipsi* at the end of the line has no proper sense... Lucr. would probably write *ussi* which might be easily confused with *ipsi*, written *issi*, a very ancient vulgarism. I do not pronounce an

opinion at present for or against *medici*.... Perhaps Lucr. may have written something like *nunc dant sollertius arte medentes*; or *saepe medentes*, which might help to explain the loss at the end of the v. if it was confused with the preceding verse.']

1011—1027: next the use of huts and skins and fire softened their bodies, marriage and the ties of family their tempers; then neighbours made treaties of friendship and alliance, which mostly they observed, though not always. 1012 foll. as said in notes 1 I feel sure a v. has fallen out here; as Ov. ars II 473—478 has imitated Lucr.: comp. with *Cognita sunt*, and 1014 *Tum genus* cet. Ovid's *Tum genus humanum solis errabat in agris...Silva domus fuerat, cibus herba, cubilia frondes, Iamque diu nulli cognitus alter erat*; for he here imitates as well 816 *Terra cibum pueris, vestem vapor, herba cubile Praebebat*. 1015 *Ignis*: Darwin, desc. of man I p. 137, calls the discovery of fire the greatest probably excepting language ever made by man. Lucr. sees all the importance of language and fire. *alsia*: the comparative *alsius* is found in Cicero, *alsiosus* in Varro and Pliny. 1016 *caeli sub tegmine*: I 988 *sub caeli tegmine*, II 663 *sub tegmine caeli*. 1018 *ing. freg. sup.*: Ovid tristia III 14 33 with a different force *Ingenium fregere meum mala*. 1020 *nec laed. nec viol.* is inculcated again and again by Epic. in Diog. x 150 τὸ τῆς φύσεως δίκαιόν ἐστι σύμβολον τοῦ συμφέροντος εἰς τὸ μὴ βλάπτειν ἀλλήλους μηδὲ βλάπτεσθαι. ὅσα τῶν ζῴων μὴ ἠδύνατο συνθήκας ποιεῖσθαι τὰς ὑπὲρ τοῦ μὴ βλάπτειν ἄλληλα μηδὲ βλάπτεσθαι, πρὸς ταῦτα οὐθέν ἐστιν οὔτε δίκαιον οὔτ' ἄδικον. ὡσαύτως δὲ καὶ τῶν ἐθνῶν ὅσα μὴ ἠδύνατο ἢ μὴ ἐβούλετο τὰς συνθήκας ποιεῖσθαι τὰς ὑπὲρ τοῦ μὴ βλάπτειν μηδὲ βλάπτεσθαι κ.τ.λ. Lucr. presents only the fair side of the theory: the speaker in Plato de rep. II 2 gives a harsher explanation than even Epicurus does why men think λυσιτελεῖν ξυνθέσθαι ἀλλήλοις μήτ' ἀδικεῖν μήτ' ἀδικεῖσθαι. 1022 *balbe* seems here to denote mere inarticulate cries. 1025 *bona magnaque pars*: Wak. quotes from Terence and Valerius Max. instances of this pleonasm: Lucr. as we have seen loves the like. 1027 comp. 856 and 850. *propago* = 'propagatio: gloss. vetus *propago* ἡ ἐπίδοσις τοῦ γένους' N. P. Howard: comp. Columella's *propagine proveniunt arbores*, the literal sense of the term.

1028—1090: nature and need prompted men to the use of speech; for all creatures feel their natural power; the calf will butt before his horns protrude; and so with other beasts birds etc.: it is absurd to suppose that one man could have invented speech; for how could he himself know what he wanted to teach, or persuade others to learn? and why should not man take to applying different sounds to denote different things, when brute beasts use different cries to express different passions? as we see in the case of dogs horses seagulls crows and other creatures.—He now comes to the question 'quaeri solitum' says Gellius x 4 'aput philosophos φύσει τὰ ὀνόματα sint ἢ θέσει'. Epic. himself in Diog.

Laert. x 75 says τὰ ὀνόματα ἐξ ἀρχῆς μὴ θέσει γενέσθαι, ἀλλ' αὐτὰς τὰς φύσεις τῶν ἀνθρώπων καθ' ἕκαστα ἔθνη ἴδια πασχούσας πάθη καὶ ἴδια λαμβανούσας φαντάσματα ἰδίως τὸν ἀέρα ἐκπέμπειν κ.τ.λ.: Plato in the Cratylus appears to agree pretty nearly with Epicurus and Lucr. as well as Lucretius' contemporary the learned pythagorean Nigidius Figulus: Gellius l. l. *nomina verbaque non positu fortuito, sed quadam vi et ratione naturae facta esse P. Nigidius in grammaticis commentariis docet, rem sane in philosophiae dissertationibus celebrem.* Comp. Darwin's desc. of man I p. 54—62: his views are much in accordance with those of Lucr. Democritus and Aristotle seem to have held the contrary view. 1029 *util. expr.*: nature forced them to utter general sounds; experience of their use made them give definite terms to definite things. *nom. rerum*: Hor. sat. I 3 99—111, an epicurean passage, has clearly had Lucr. before him: with this and 1058 *Pro vario sensu varia res voce notaret* comp. l. l. 103 *Donec verba quibus voces sensusque notarent, Nominaque invenere*; then with Hor. l. l. 99 *Cum prorepserunt primis animalia terris, Mutum et turpe pecus* comp. 791 foll.; with *glandem atque cubilia propter Unguibus et pugnis, dein fustibus, atque ita porro Pugnabant armis quae post fabricaverat usus* comp. 1416 *Sic odium coepit glandis, sic illa relicta Strata cubilia sunt——obiret*, 1283 *Arma antiqua manus ungues* cet.; with *Oppida coeperunt munire* comp. 1108 *Condere coeperunt urbis*; with 109 *rapientis more ferarum* comp. 932 *vitam tractabant more ferarum*; with 111 *Iura inventa metu* comp. 1144 *Iuraque constituere* and all that follows; then Horace concludes with the favourite Lucretian expression *fateare necesse est.*

1031 *infantia* in its primary sense; Cicero uses it metaphorically, but with much the same force; see Forc. 1033—1035: comp. Ov. hal. 3—9. 1033 *quoad* or *quod*, as II 248 *quod cernere possis* = quatenus. *abuti* = uti: *vim*; but II 653 *nomine abuti*: see n. to III 956: Plautus and Terence too have the accus., [and so has Cato.] 1035 *inurget* occurs also in Apul. met. VIII 10. 1036 *scymni*: a curious use of the Greek synonyme of *catuli.* 1040 *auxiliatum*: lexicons cite no other instance of this word. 1041 *tum*, when speech first came into use. 1045 *Temp. eod.*: comp. 765 and 756. 1047 *unde insita* cet.: 182 *Notities divis hominum unde est insita primum, Quid vellent facere ut scirent animoque viderent*, where see notes: *notities* here, as there, is a poetical substitute for Epicurus' technical πρόληψις. 1049 *scirēt*: see notes 1, where this reading is shewn to be necessary; and n. to II 27 *fulgēt.* 1057 *vigeret*: Livy XXXIX 40 7 *nec is tantum cuius lingua vivo eo viguerit.* 1061 *gaudia gliscunt*: Pacuv. 294 *gliscit gaudium.* 1063 foll.: Darwin desc. of man I p. 54 'the dog since being domesticated has learnt to bark in at least four or five distinct tones'.
1063 *Inritata, magna, Mollia, nudantia*: see n. to 13. *Inritata, ricta,* 1065 *restricta*: Plaut. capt. 485 *Ne canem quidem inritatam voluit quis-*

quam imitarier, Saltem, si non adriderent, dentes ut restringerent: Donatus to Andr. 597 '*inritatus*. ducitur autem verbum a canibus qui restrictis dentibus hanc litteram *r* imitantur': Lucil. I 32 Muell. *Inritata canes, quam homo, quam* (i.e. litteram *r*) *planiu' dicit.* 1064 *ricta*: VI 1195 *rictum*; and so Cic. Verr. IV 94: IV 1213 *vulta*. *restricta* by drawing back the soft lips: Apul. apol. p. 392 *Restrictis forte si labellis riseris.* 1066 *Et cum*, 1071 *Et cum*, 1077 *Et cum*, 1082 *Et quom*: see n. to I 281 *Et cum mollis.* 1069 *Suspensis*: III 196 *aura suspensa levisque*: so *suspenso pede*, *gradu* and the like: it seems to mean, hardly allowed to fall. *teneros* is proleptic; they make a pretence of biting, but so as to shew at the same time that they mean no harm. [Comp. the last two verses of an imitation of Catullus' third poem quoted in Hermes vol. I p. 68 *Nec sevire potes nec insilire, Nec blandis mihi morsibus renides.*] 1070 *gannitu*, *adulant*, 1071 *baubantur* all express primarily sounds made by dogs, as Nonius explains s. vv. with reference to Lucr. 1074 *equus iuvencus*: Pliny X 146 *iuvencae*=iuvenes gallinae: Hor. od. II 8 21 *Te suis matres metuunt iuvencis*, of young men. 1075 *Pinn. am.*: 738 *Pennatus*: Virgil has *aligerum amorem.* 1080 *in salso*: often as *salsus* is an epithet to *mare*, *gurges*, *fluctus* and the like, I do not elsewhere find it, as here, used for a subst. *vic. vit.*: see n. to 804. 1084 *cornicum* cet.: Virg. geor. I 388 foll. and 410 foll. has some resemblance to this passage. *cornices* and *corvi* are clearly used here with poetical licence, and between them include the whole crow kind: *greges* would be singularly inappropriate to the primary sense of *corvi.* 1088 *Muta*, as 1059, *pecudes mutae*, has its proper force, uttering inarticulate sounds.

1091—1104: lightning first gave fire to men; or else the friction of trees rubbing together: cooking they would learn from the sun, which they would see softening and ripening things.—Every one will agree with Lach. that 1091—1160 are subsequent additions by the poet, of the same nature as those we have already so often had: these three paragraphs have no connexion with the context, either before or after: 1161 *Nunc quae* naturally follows 1090; for at 73 he promised to discuss the question of the gods immediately after that of the invention of speech; again in this our present passage he speaks of the first discovery of fire, though 1011 it was already in general use; again 1105—1160 he mentions cities kings magistrates and laws, though not till 1361 does he treat of the beginning of agriculture; and then 1440 he speaks of fortresses and the division of lands, though 1108 all this and much more was assumed. 1091 *tacitus requiras*: Ov. her. III 12 *Quaerebant taciti*; Hor. sat. I 9 12 *aiebam tacitus*; epist. II 2 145 *mecum loquor haec tacitusque recordor*: *tacitus*=tecum. 1095 *Fulgěre*: see n. to II 41 *Fervěre.* 1096 *Et tamen*: see n. to I 1050, and to V 1177. 1097 *Aestuat* of the swaying movement of a tree in the wind is natural enough; not unlike,

Catull. 25 12 *Et insolenter aestues velut minuta magno Deprensa navis in mari*, or Cic. Verr. II 74 *aestuabat dubitatione, versabat se in utramque partem non solum mente, verum etiam corpore*: the sense of 'grows hot' seems not so suitable here, as that is an after result.

1105—1135: every day men of genius invented improved methods of life: cities were built, lands and cattle allotted at first according to merit; but soon the discovery of gold gave all power to the wealthy: men would not learn how little was needed for happiness; they therefore sacrificed everything for power and eminence, often when they had reached the summit, only to be again dashed down: let men thus struggle on along the path of ambition, since they have no true enjoyment, being really the slaves of their own dependents. 1107 *corde*: *cor habere* is a common phrase; see Forc. 1111 *facie* = 1116 *pulchro corpore*, and means personal appearance, εἶδος, generally. [1112 comp. Enn. ann. 481 *viresque valentes.*] 1118 foll. as Epicurus himself so often inculcates: Diog. X 144 ὁ τῆς φύσεως πλοῦτος καὶ ὥρισται καὶ εὐπόριστός ἐστιν, ὁ δὲ τῶν κενῶν δοξῶν εἰς ἄπειρον ἐκπίπτει: 130 τὸ μὲν φυσικὸν πᾶν εὐπόριστόν ἐστι, τὸ δὲ κενὸν δυσπόριστον: with whom the epicurean agrees in Cic. de fin. I 46 *natura divitias quibus contenta sit et parabilis et terminatas habet* cet. 1119 *penuria parvi*: so Democr. Mullach p. 170 26 πενίη, πλοῦτος, ὀνόματα ἐνδείης καὶ κόρου· οὔτε ὢν πλούσιος ὁ ἐνδέων, οὔτε πένης ὁ μὴ ἐνδέων. *penuria* is written with *e* by Augustus too in his res gestae. 1120 *claros vol. se*: a constr. not uncommon in Cicero: see Madv. de fin. II 102 and Mayor Phil. II 14: ib. 19 *cupit se audacem*: Plaut. trin. 664 *cum te maxume clarum voles.* *se atque*: for rhythm comp. IV 809 *contendere se atque parare.* *claros atque pot.*: Sall. Cat. 38 1 *ita ipsi clari potentesque fieri.* 1124 *iter viai*: see n. to II 626. 1127 *vaporant* is used here in a peculiar sense, analogous to that in which he always uses the subst. *vapor*: Livy VIII 31 7 *invidiam tamquam ignem summa petere*; XLV 35 5 *intacta invidia media sunt; ad summa ferme tendit*; Ov. rem. 369 *Summa petit livor;...Summa petunt dextra fulmina missa Iovis.*

1130 *regere imp.*: an expression found in Aen. VI 851; Livy III 15 7; VIII 23 9; Sen. Phoen. 374; Hipp. 621; Med. 216; Pliny epist. VI 16 4.

1131 *sanguine sudent*: this fine expression is used literally VI 1147 *Sudabant etiam fauces.. Sanguine*: Enn. trag. 213 *terra sudat sanguine*; Livy XXVII 4 14 *quattuor signa sanguine multo diem ac noctem sudasse*; and such a notion as this may have given occasion to Lucretius' use of the word. 1133 *sapiunt al. ex ore*: cannot therefore know the true nature of things, and must always *animi incerto errore vagari.*

1134 *ex aud.*: Plaut. Bacch. 469 *vidi, non ex audito arguo.*

1135 *Nec magis* cet.: he recalls himself from his digression into the matters of his day to the subject in hand, the early state of the world.

1136—1160: thus kings were overthrown, and anarchy followed; till nations weary of violence established laws and constitutions: then fear of punishment restrained men, as injustice generally recoils on the wrongdoer, and if he escape punishment, he cannot escape the terrors of conscience. 1136 *Ergo reg. occ.*: because they had attained supreme power, and therefore had attracted the lightning of envy and been dashed to the earth. 1138 *cap. insigne*: Livy XLV 19 10 *nomen regium et praecipuum capitis insigne gerat*; XXIV 21 7 *cum cruentam regiam vestem atque insigne capitis ostentarent*; XXVII 31 4 *populariter dempto capitis insigni*: Sen. Phoen. 40 *sanguineum gerens Insigne regni*; epist. 80 10. 1140 *metutum*: I find no other instance of this partic. though *metuendus* is so common; but so it is with *timeo horreo* and some other verbs of fearing. 1141 *Res* cet. I formerly took, as it is generally taken, to mean 'summa res' or 'summa imperii ad infimum vulgus redibat', a sense the words, as I shewed, could doubtless bear, and which would accord with the common metaphorical use of *faex*. But now I see the meaning is 'matters were falling into utter confusion and disorder': this suits best with *turbas*, the imperf. *redibat* and the whole context. *redibat* = simply *ibat*; as so often in the phrases *res ad rastros*, *ad restim*, *ad interregnum*, *ad gladios*, *ad triarios*, *redit*, etc.: comp. with the expression Petron. sat. 78 *ibat res ad summam nauseam*; and with the sense what Priscian quotes from Sulla's rerum suarum XXI *ad summam perniciem rempublicam perventurum* (sic) *esse*. *faecem*: Varro sat. men. 452 Buech. *hunc vocasset e liquida vita in curiae vestrae faecem*; Sen. epist. 75 18. 1142 *summatum*: I find no other instance of this word. 1143 *partim* i.e. *ex iis hominibus partim* or *aliqui docuere*: a use common in the best writers; 1083 *Et partim mutant*; 1310 *partim prae se misere leones*; III 78 *Intereunt partim*; VI 1172 *partim...Membra dabant*; 1208 *partim...Vivebant*: 1211 *perdebant...partim*: see Neue I p. 205 for its use in other writers. 1144 *Iura*, *legibus*, 1147 *leges artaque iura*: in the former case these words are probably synonymes; in the latter tautological: though of course *ius* has a wider meaning than *lex* and includes all which is or ought to be legally right: Horace too when he wrote *Qui consulta patrum, qui leges iuraque servat*, had probably no accurate distinction in his mind between the last two words, as *iura* comprises strictly speaking *consulta*, *leges* and many other things besides; and so Juv. II 72 *te leges ac iura ferentem*. [For *arta* comp. Hor. ars 423 *artis Litibus implicitum*; Pliny XVI 12 *additae leges artae.*] 1145 and 1150 *colere aevom*: so Plautus and Terence *vitam colere* for *vivere*. 1152 *quemque* i.e. every one who perpetrates the *vis* and *iniuria*. 1153 prob. alludes to the well-known verses of Hesiod Oἷ αὑτῷ κακὰ τεύχει κ.τ.λ., so often imitated. [1154 *placid. ac pac. deg. vitam*: comp. Lucil. XIV 8 *Quin potius vitam degas sedatu' quietam!*] 1156 there is probably some sarcasm in the *divom*: though it may be a mere

conventional form of speech, and said with reference to the offender's thoughts. **1157** *id fore clam*: Plaut. trucul. IV 3 21 *clam quae speravi fore*; Ter. hec. 261, 568 and 577 *clam me est*; adel. 71 *Si sperat fore clam*; Livy V 36 6 *nec id clam esse potuit*; Fronto ad amic. I 15 *quod clam ceteris esse velim*: see n. to II 568 *palam est*: one might take the last words of Cicero quoted below for a conscious paraphrase of this verse of Lucr. Here again we may notice, as was observed at 1020, that Lucr. softens and tones down what Epicurus himself expresses in all its naked harshness, Diog. X 151 ἡ ἀδικία οὐ καθ' ἑαυτὴν κακόν, ἀλλ' ἐν τῷ κατὰ τὴν ὑποψίαν φόβῳ εἰ μὴ λήσει τοὺς ὑπὲρ τῶν τοιούτων ἐφεστηκότας κολαστάς. οὐκ ἔστι τὸν λάθρα τι ποιοῦντα ὧν συνέθεντο πρὸς ἀλλήλους εἰς τὸ μὴ βλάπτειν μηδὲ βλάπτεσθαι, πιστεύειν ὅτι λήσει, κἂν μυριάκις ἐπὶ τοῦ παρόντος λανθάνῃ· μέχρι γὰρ καταστροφῆς ἄδηλον εἰ καὶ λήσει: Sen. epist. 97 makes much of this theme, *eleganter itaque ab Epicuro dictum puto* potest nocenti contingere ut lateat, latendi fides non potest...*tuta scelera esse possunt, secura non possunt*, and more to the same purpose: *timere semper et expavescere et securitati diffidere*: and so the epicurean in Cic. de fin. I 50 *quamvis occulte fecerit, numquam tamen id confidet fore semper occultum* cet. **1159** *protraxe*: see n. to I 233 *consumpse*, and comp. III 650 *abstraxe*.

1161—1193: men believed in and worshipped gods, because they saw with their waking minds and still more in sleep shapes of preter-human size and beauty and strength: as these shapes were ever present and as their might appeared so great, they deemed them to be immortal; and to be blessed, because they could do such deeds and had no fear of death: they saw too the seasons change, and all the wonders of the heaven; they therefore placed their gods in heaven and believed all things to be governed by their providence. **1163** *săcra*, **1164** *săcra*: see n. to IV 1259 *lĭquidis et līquida*. **1169** *divom* cet.: something has been said already of the gods of Epicurus, 146 foll. and II 646 foll., and many passages quoted: Sextus adv. math. IX 25 exactly agrees with Lucr., Ἐπίκουρος δὲ ἐκ τῶν κατὰ τοὺς ὕπνους φαντασιῶν οἴεται τοὺς ἀνθρώπους ἔννοιαν ἐσπακέναι θεοῦ. μεγάλων γὰρ εἰδώλων, φησί, καὶ ἀνθρωπομόρφων κατὰ τοὺς ὕπνους προσπιπτόντων ὑπέλαβον καὶ ταῖς ἀληθείαις ὑπάρχειν τινὰς τοιούτους θεοὺς ἀνθρωπομόρφους. **1170** *animo vigilante*, **1171** *in somnis*: Velleius in Cic. de nat. deor. I 46 *a natura habemus omnes omnium gentium speciem nullam aliam nisi humanam deorum. quae enim alia forma occurrit umquam aut vigilanti cuiquam aut dormienti?* all this part of Cicero will illustrate Lucr. who means to say that all these sensible impressions of the form size and beauty of the gods are true, even that of their immortality: it is only the mental inferences added to these impressions which are false, that of their power and providence. **1177** *Et tamen*: comp. 1125 and n. to I 1050; and V 768 *Et tamen ipsa* cet.; 1096 *Et ramosa tamen* cet.; 'putting all the

previous considerations aside, this that': Cic. Cato 16 supplies a good instance of this force, *notum enim vobis carmen est; et tamen ipsius Appii extat oratio*, i.e. and even if the verses of Ennius were not known to you, yet Appius' own speech is extant to inform you: I am astonished that Halm says to *et tamen* of all mss. 'malim *etiam*': ad Att. IX 10 3 *et tamen spes quaedam*; X 6 1 *meas cogitationes omnes explicavi tibi superioribus litteris; quocirca hae sunt breves; et tamen quia festinabam* cet.: the latest editor Boot says 'pro inepto *et tamen* recepi Malaspinae *etiam*': VIII 12 A 2 (Pompey's) *ex quibus tamen* cet.; X 8 6 *et tamen* cet.; XI 3 1; XIV 5 2 *vides tamen*; XIII 42 1 *aes, inquit, alienum, et tamen ne viaticum quidem*; de fin. II 84 *Et tamen*: see Madvig: Livy XXXIX 36 12 *quorum tamen maxima pars nihil pertinet ad nos*; Ov. fasti III 573; IV 699; her. 14 62; Plin. epist. VIII 3 2; 21 4: Sen. Troad. 534 gives the full phrase, *Et, si taceret augur haec Calchas, tamen Dicebat Hector*. [Comp. also Cic. epist. I 9 10 *haec cum ad me frater pertulisset et cum tamen Pompeius ad me cum mandatis Vibullium misisset*; Dolabella ap. Cic. epist. IX 9 3 *et meas tamen preces* cet.; X 1 3 *et, praeterquam quod rei publicae consulere debemus, tamen* (*etiam* Wesenb.) *tuae dignitati ita favemus*; Plaut. Stich. 730 *mecum ubi est, tecum est tamen, Tecum ubi autem est, mecum ea itidem est*: where *tamen* exactly=itidem.] **1178** *Non tem. ulla*: VI 1219 *Nec tamen omnino temere . . ulla* cet.: the expression is common: Livy II 61 4; Suet. Aug. 16 and 53; Cal. 36; Florus I 33 (II 18); Hor. sat. II 2 116 *Non temere . . Quicquam*; [Caes. b. Gall. IV 20 3 *neque enim temere . . illo adit quisquam*; Nepos Attic. 20 2 *nullus dies temere intercessit, quo non* cet.] *convinci*: he has often used *vinco* for *convinco*; here he uses *convinci* for *vinci*; and I can find no second instance. *putabant*, 1179 *putabant*, 1181 *videbant*, 1176 *manebat*, 1170 *videbant*: this monotony of terminations is common in the older poets who were more careless on such points than the later. **1180** *mortis timor* which Lucr. and Epicurus so often insist on as the main cause of man's misery. *vexaret*: the subj. of course expresses their thought. **1182** *cap. lab.* occurs in Ter. Andr. 719; 870; hec. 344; Plaut. trin. 271. **1183** *caeli rationes* cet.: Sextus l. l. ἔνιοι δὲ ἐπὶ τὴν ἀπαράβατον καὶ εὔτακτον τῶν οὐρανίων κίνησιν παραγινόμενοι φασὶ τὴν ἀρχὴν ταῖς τῶν θεῶν ἐπινοίαις ἀπὸ ταύτης γεγονέναι πρῶτον. **1187** *tradere, facere*=accus. subst.: see n. to I 418. **1188** *deum templa* seems here to have much the same force as 948 *silvestria templa Nympharum*. **1189** *nox et luna, Luna dies et nox et noctis signa*: Lach. to support his weak alteration says 'si poeta in utroque ἐπανάληψιν voluisset, debebat scribere *nox et luna, Nox et luna, dies*; quibus non poterat subici...*et noctis signa*'; but it was partly perhaps in order that he might add *et noctis* that he has made this variation; and though Lach. says 'debebat scribere', the poet thought differently, supported as he was by the great exemplar of poets, who

says Il. B 837 Τῶν αὖθ' Ὑρτακίδης ἦρχ' Ἄσιος, ὄρχαμος ἀνδρῶν, Ἄσιος Ὑρτακίδης ὅν, 870 Τῶν μὲν ἄρ' Ἀμφίμαχος καὶ Νάστης ἡγησάσθην, Νάστης Ἀμφίμαχός τε, Νομίονος ἀγλαὰ τέκνα: comp. too Ter. Ph. 352 353: Catull. 34 1—4; 42 11 and 19; 58 1 and 2; 66 75 and 76; Ov. met. VI 299 and 300; [III 206 207 and 208; V 129; XII 172;] her. 8 80; 9 7; 12 59 and 60; Cic. 2 in Catil. 25; Pliny epist. VIII 6 5; Lucr. himself 1327 *Tela infracta suo tinguentes sanguine saevi*, *In se fracta suo tinguentes sanguine tela*; and Catullus there quoted. Nay it is to be noted that the oldest extant Latin writer on rhetoric explains *conduplicatio*, as he translates ἐπανάληψις, to be *eiusdem unius aut plurium verborum iteratio*, *hoc modo* tumultus Gracchi, Gracchi tumultus domesticos et intestinos comparant. *item* commotus non es, cum tibi pedes mater amplexaretur, non es commotus. *item* nunc audes etiam venire in horum conspectum, proditor patriae, proditor inquam patriae, venire audes in horum conspectum. 1190 comp. Aen. VII 138 *tum noctem noctisque orientia signa.* *severa*: IV 460 *severa silentia noctis.* 1191 *Noctivagae* cet.: II 206 *Nocturnasque faces caeli sublime volantis* cet.; see n. there: *noctivagus* is found in Aen. X 216, which Macrob. sat. VI 5 12 compares with Egnatius de rerum natura I *noctivagis astris* cet. 1193 *murmura minarum* seems like in principle to 369 *cladem pericli*; see n. there: Sextus l. l. 24: ὁρῶντες γάρ, φησί [Δημόκριτος], τὰ ἐν τοῖς μετεώροις παθήματα οἱ παλαιοὶ τῶν ἀνθρώπων, καθάπερ βροντὰς καὶ ἀστραπὰς κεραυνούς τε καὶ ἄστρων συνόδους ἡλίου τε καὶ σελήνης ἐκλείψεις ἐδειματοῦντο, θεοὺς οἰόμενοι τούτων αἰτίους εἶναι.

1194—1240: what misery men brought on themselves by assigning to the gods such powers and passions! the ceremonies of superstition shew not genuine piety which consists rather in despising such things: true when we look up to heaven and think of its beginning and end, this fear of the gods is apt to seize on us: nay who does not dread the thunder, lest it be a presage of divine vengeance? think too of generals and armies whelmed in the sea; of all men's glories dashed down to the dust by some hidden power: no wonder that men abase themselves before the gods. 1194 *O genus* cet.: the form of expression recalls Emped. 14 Ὦ πόποι, ὦ δειλὸν θνητῶν γένος, ὦ δυσάνολβον, Οἵων ἐξ ἐρίδων ἔκ τε στοναχῶν ἐγένεσθε. 1195 *iras* cet.: *neque tangitur ira* was an essential of the divine nature according to Epicurus and Lucr. 1197 *Volnera*: III 63 *haec vulnera vitae*; Cic. de off. III 85 *hunc tu quas conscientiae labes in animo censes habuisse, quae vulnera?* 1198 *velatum* refers to the Roman custom of praying *velato* or *operto capite*, the Greek custom being *aperto capite*: Dionysius and Plutarch as Greeks both dwell on this to them curious fashion: it was traditionally traced back to Aeneas by them and others as well as by Virg. Aen. III 405 *Purpureo velare comas adopertus amictu*: [comp. Ovid fasti III 363 (of Numa) *caput*

niveo velatus amictu.] 1199 *Vertier* refers to another habit of Roman worship: the suppliant approached in such a way as to have the statue of the god on his right and then after praying wheeled to the right so as to front it, and then prostrated himself: προσκυνεῖν περιφερομένους: Suet. Vitell. 2 *capite velato circumvertensque se, deinde procumbens*; Plaut. curc. 69 *quo me vertam nescio.* PA. *Si deos salutas, dextrovorsum censeo*; Val. Flaccus VIII 243 *sacrificas cum coniuge venit ad aras Aesonides, unaque adeunt pariterque precari Incipiunt...dextrum pariter vertuntur in orbem*: *vertuntur* being reflexive, as *Vertier* here, and IV 295 *convertitur*, 317 *convertier.* Livy has *convertentem se*; Pliny *corpus circumagere. ad lapidem* would seem to be most simply taken as said contemptuously of the statue. But since we find *lapis, sacer lapis, lapis unctus, unguine delibutus, coronatus* and the like, said especially of the *termini* which were solemnly worshipped, but also of stones set up in the streets and roads, etc. occurring so often in all periods, Lucr. may refer to them: comp. Tib. I 1 11; Prop. I 4 24; Ov. fasti II 641; Sen. Hipp. 528; Apul. flor. 1; Sic. Flaccus p. 141 l. 4 Lach.; Prud. c. Symm. II 1006; Arnob. I 39; August. civ. dei XVI 38: and, in Greek, Luc. Alex. 30 καὶ εἰ μόνον ἀληλιμμένον που λίθον ἢ ἐστεφανωμένον θεασαιτο, προσπίπτων ἀεὶ καὶ προσκυνῶν: Clem. strom. VII p. 713 πάντα λίθον, τὸ δὴ λεγόμενον, προσκυνοῦντες. These *lapides* were generally mere stones; but Min. Fel. 3 has *lapides, effigiatos sane et unctos et coronatos*, referring to a *simulacrum Serapidis* in the open air; which again would leave the meaning of Lucr. uncertain. 1200 *procumbere*: see Suet. l. l. *pandere palmas*: Aen. III 263 *passis de litore palmis Numina magna vocat*: so *tendere palmas, manus duplices*, etc. etc. 1202 *vota* are here the *votivae tabulae* or *tabellae*, hung up on the wall of a temple or elsewhere, Aen. XII 766 on an *oleaster*; Ov. met. VIII 744 on a *quercus*: *vittae mediam memoresque tabellae Sertaque cingebant, voti argumenta potentis*: comp. too Apul. met. VI 3 and 29; in fulfilment of a vow on recovery from sickness or for escape from some disaster, especially shipwreck: Tib. I 3 27; Cic. de nat. III 89; and so Virgil Horace Juvenal Persius and others; but vows were also thus offered prospectively, before the danger was past: Prop. V (IV) 3 17; Juv. XII 98. Lucretius' vague words may refer to either practice or to both. *vot. nect. vota*: Prop. IV (III) 5 12 *armis nectimus arma nova*; Apul. met. VIII 7 *variis exemplis multivagi casus solacia nectere.* 1203 *pacata*: 1154 *pacatam degere vitam.*

1204 *Nam*: it is true piety, not to perform these ceremonies, but to have a mind at ease; *for* it requires great strength of mind and a knowledge of the true being of the gods, not to be overpowered by the grandeur and terror of nature. 1205 *fixum* only means fast in its place and abiding, for he grants it to be probable that the sphere of ether and the stars revolve: Ovid met. II 204 *altoque sub aethere fixis Incur-*

sant stellis, was thinking doubtless of Lucr.; Lucr. as we have seen supposes the stars to be above the sun and moon; probably therefore in the lower part of ether. With this and all that follows comp. Democritus quoted at 1193. 1207 *in pectora caput erigere* i.e. assurgere et invadere pectora. 1208 *caput*: I 64 *Quae caput a caeli regionibus ostendebat.* 1209 *nobis*: the dat. ethicus: see n. to I 797. 1213 *finis quoad*: comp. 1433. 1214 *Solliciti*: if this be the true reading, comp. I 343 *Non tam sollicito motu privata carerent;* VI 1038 *Sollicito motu semper iactatur.* 1215 comp. Tib. (Lygd.) III 1 21 *meritam longa donate salute.* 1216 = I 1004. 1217 = 379. 1219 *Contrahitur* is the opposite of *diffunditur*, expands with joy: Cic. de nat. II 102 *tum quasi tristitia quadam contrahit terram, tum vicissim laetificat*; [Lucil. XXIX 111 *non tu Contraheris, vel qui in nuptis vel vergine pecces,* (*nuptiis velse seneces te* mss.) *Nec sine permitie?*] *correpunt*, like a worm or other reptile drawing itself together: 'tralatio est mirabilis et audax' says Lamb. 1220 *tellus—caelum*: VI 287 *Inde tremor terras graviter pertemptat et altum Murmura percurrunt caelum.* 1222 *populi*, regular πόλεις of civilised Greeks Italians or Poeni: *pop. gen. reg.*: Cic. de domo 73 *summum est populi Romani populorumque et gentium omnium ac regum consilium senatus*; Livy XLV 19 1; XXIII 33 1. 1223 *Corripiunt* = contrahunt, but is stronger: VI 1161 *Corripere assidue nervos et membra*; IV 83 *correpta luce diei.* 1225 *Poenarum solvendi*, a constr. found not only in Plautus and Terence, *nominandi istorum copia*, capt. 1004 *lucis tuendi copiam, novarum spectandi copiam*; truc. II 4 19 *tui* (fem.) *videndi copia*, hecyra 37 *eius* (uxoris) *videndi*, but also in Cicero: *facultas agrorum condonandi*; *exemplorum eligendi potestas*; *reiciundi trium iudicum potestatem*; *earum rerum neque infitiandi rationem neque defendendi facultatem*: it is curious that in all these instances the subst. governing the gerund is the same or has the same meaning: de fin. V 19 *eorum adipiscendi causa.* [Comp. Fronto ad amicos I 24 *tantus usus studiorum bonarumque artium communicandi*: see Klusmann emend. Fronton. p. 31: see too Roby gramm. pt. II. p. lxviii.] 1227 *Induperatorem...Cum leg.*: Enn. ann. 552 *Cum legionibus quom proficiscitur induperator.* 1229 *divom pacem*, grace, favour, pardon of the gods, is copiously illustrated by Forc. from Virgil and others: *deum pacem exposcere, inventa pace deum* and the like are common in Livy: XLII 2 3 *pacemque deum peti precationibus*: I find two instances of *pax* thus used in inscr. Lat. I. *adit*: Cicero has *deos, aras adire*; Apul. met. VI 3 *adire cuiuscumque dei veniam. quaesit*: this old form, always retained in the familiar *quaeso* and in *quaesivi quaesitus*, is found in Ennius several times and in Plautus; Cic. Arat. 18 *si quaesere perges*: Sallust has *quaesere, quaesit* and *quaesitur.* 1230 must certainly be retained; for repetitions like *pacem, paces* are very common in Lucr. and the older writers: Hor. epist. II 1 102

Hoc paces habuere bonae ventique secundi looks like a reminiscence of Lucr.: the plur. *paces* is common enough. *animas*: see n. to I 715. **1231** *saepe* appears to be idiomatical, as in Aen. I 148, where see Conington: Lucr. does not mean to say 'in vain, since he *often* perishes none the less'; but what he means is this 'since *in every case* a man perishes none the less for all his prayers, as we see by many examples'; *saepe* therefore means *id quod saepe fieri videmus*: though less marked, it has essentially the same force in such passages as II 85 and IV 34, where *cum saepe* means *cum, ut saepe fit*: III 912 *ubi discubuere tenentque Pocula saepe homines* i.e. ut saepe fit. *turbine corr.*: VI 395 *Turbine caelesti subito correptus*; Aen. I 45 *Turbine corripuit.* **1232** *vada* seems to be used at once in a literal and metaphorical sense: comp. 1289 *belli Miscebant fluctus.* **1233** *vis abdita quaedam*, the secret power and working of nature; the effect of which in particular cases no man can foretell, however unvarying and inexorable her laws: VI 26 *Quidve mali foret in rebus mortalibu' passim, Quod fieret naturali varieque volaret Seu casu seu vi, quod sic natura parasset.* Bayle art. Lucrèce n. F accuses Lucr. of gross inconsistency in speaking of this *vis abdita quaedam*, when at the same time he attributes all things to the necessary movement of atoms, 'cause qui ne sait où elle va ni ce qu'elle fait'; but this very 'cause' is the *vis abdita quaedam*: it is true that as far as form and expression are concerned there is a struggle between the poet's imagination and the philosopher's creed. Lucretius is here speaking of course generally; but it is not unlikely that his fancy may have been caught by reading of some striking disaster of this kind, such as that of M. Claudius Marcellus who perished in this way just before the third Punic war, as he was going on an embassy to Masinissa: *M. Marcellus, qui ter consul fuit, summa virtute pietate gloria militari, periit in mari*, says Cicero in Pison. 44; he several times refers to his fate by which he was greatly impressed: Livy epit. L *Claudius Marcellus coorta tempestate fluctibus obrutus est.* **1234** *fascis* cet.: see n. to III 996. **1237** *dubiaeque*: comp. 985 *validique leonis*; IV 518 *ruere ut quaedam videantur velle ruantque*; and n. to II 825 *uno varioque colore.* [**1238** *se temnunt*: Lucil. XI 13 *Non contemnere se et reges odisse superbos.*] **1239** *relinqunt*: Madvig at end of Henrichsen de frag. Gottorp. 'non quaeritur quid relinquant, nihil enim tollunt, sed quid necessarium putent et propterea excogitent. scrib. *requirunt*': but *relinqunt* here means, to admit, hold, believe, a sense it has again and again in Lucr. with or without an infin.: I 742 *motus exempto rebus inani Constituunt et res mollis rarasque relinquont*: [and see n. to I 515 and 703; III 40.]

1241—1280: the metals were discovered through the burning of woods which baked the earth and caused the ore to run; with these they made arms and tools: copper at first was rated more highly than useless gold and silver; now it is the contrary; thus things in turn

flourish and decay. 1242 *plumb. pot.*: so *venti, animae, animi, corporis potestas* and the like: a favourite periphrasis, with the same force as *vis.* 1243 foll.: 'comp. Arist. mir. ausc. 87' H. Nettleship. 1246 *form. ergo*: III 78 *statuarum et nominis ergo*; Livy XXII 38 4 *fugae atque formidinis ergo.* 1248 *pandere* must mean, to open up and clear of trees. *pascua* is the adj. 1251 *saepire...ciere*: Virg. ecl. X 57 and geor. I 140 *canibus circumdare saltus.* 1256 *argenti* cet.: Virg. geor. II 165 *argenti rivos aerisque metalla Ostendit venis atque auro plurima fluxit*: Milton too par. lost XI 565 has imitated all this passage, *two massy clods of iron and brass Had melted, whether found where casual fire Had wasted woods on mountain or in vale Down to the veins of earth; thence gliding hot To some cave's mouth* etc. 1262 *penetr. eos* i.e. penetrabat in animos eorum: I do not find an exactly similar instance, but Wak. quotes Tac. ann. III 4 *nihil tamen Tiberium magis penetravit quam* cet. 1266 *darent* i.e. hae res, *possent* i.e. ipsi. 1268 *terebrare, pertundere, perforare*: I do not know if Lucr. meant accurately to distinguish these words, or whether he uses them tautologically more or less. *terebra* appears to mean gimlet and auger and drill; and I find *terebra pertundere*, and *terebra perforare* in good authors: perhaps *terebrare* is to bore with a gimlet, the oldest sense of *terebra*; *pertundere* to pierce with a punch; *perforare* to bore with auger or drill. 1270 *violentis*, applied to copper is poetical. 1275 *in sum. succ. hon.*: 1123 *ad summum succedere honorem.* 1276 *volvenda*: see n. to 514 *volvenda sidera.* *tempora rerum* is much the same as *statum rerum*: Wak. compares Aen. VII 37 *quae tempora rerum, Quis Latio antiquo fuerit status*: comp. too Cic. ad fam. II 18 3 *tempora autem reipublicae qualia futura sint, quis scit?* 1276 foll.: comp. 831 *Omnia commutat natura et vertere cogit. Namque aliut putrescit et aevo debile languet, Porro aliut clarescit et e contemptibus exit.*

1281—1307: for arms men used at first hands nails teeth clubs, then fire, then copper or brass, at last iron; horses next, then chariots, then elephants were employed in war, strife begetting one horror after another. 1283 *Arma* cet.: Hor. sat. I 3 101 *Unguibus et pugnis, dein fustibus, atque ita porro Pugnabant armis.* 1289 *Aere* cet.: doubtless, as Lamb. says, he was thinking of Hesiod works and days 150 Τοῖς δ' ἦν χάλκεα μὲν τεύχεα, χάλκεοι δέ τε οἶκοι, χαλκῷ δ' εἰργάζοντο· μέλας δ' οὐκ ἔσκε σίδηρος. 1290 *Miscebant*: there is perhaps in this word a blending of the notions of *miscere fluctus* and *miscere proelia.* *fluctus*: we have the same metaphor in 1435 *belli magnos commovit funditus aestus.* *vasta* seems to unite the ideas of huge and ugly, misshapen. *serebant*: it is not clear to me from which of the two verbs this comes: it may mean 'scattered broadcast', a stronger term than *spargebant*: comp. *lumine conserit arva*; or, as Livy and others have *levia certamina serens*, *certamina serebant*, etc. with the force of *conserere*, Lucr. may extend

this meaning to *serere vulnera*, they joined, applied or the like: but *sermones, colloquia, circulos, haec sermonibus, Haec inter sese vario sermone serebant*, seem equally ambiguous: Livy XXI 6 1 writes *certamina cum finitimis serebantur, maxime Turdetanis. quibus cum adesset idem qui litis erat sator*: such apposition could scarce fail to confuse in a Latin's mind the two meanings of *serebantur*. Fronto ad Verum 8 has *quam libenter consevisti sermonem*. 1294 *Versaque* cet. may refer, as Bentl. says, to its use in magical and unlawful rites: Aen. IV 513 *Falcibus et messae ad lunam quaeruntur aenis Pubentes herbae*; Ovid met. VII 227 *Partim succidit curvamine falcis aenae*; her. VI 84 *Diraque cantata pabula falce metit*: Macr. sat. V 19 9 compares Virg. l. l. with Soph. ῥιζοτόμοι: γυμνὴ χαλκέοις ἤμα δρεπάνοις: [see ibid. χαλκέοισι κάδοις δέχεται:] this would explain the curious variant *obscenum*. But Lucr. may merely mean 'went out of fashion', 'fell into disgrace'. 1296 *Exaequata*, by the equality of weapons. 1297 *conscendere* and the following infinitives as 1250 *venarier*, are all used as substantives: see n. to I 331. 1298 *dex. rig.*: while guiding the horse with the left, to have the free use of the right. [1301 *escend. currus*: Livy XXIII 14 2 *equum escendere*; the older writers generally have *esc. in* cet.] 1302 *boves lucas*, 1339 *boves lucae*: Pliny nat. hist. VIII 16 *elephantos Italia primum vidit Pyrri regis bello et boves lucas appellavit in Lucania visos anno urbis* 472: Varro de ling. Lat. VII 39, in trying to controvert, really confirms this tradition: the expression is found in Naevius, Sen. Hippol., Silius and others, [and appears now to be the true reading in Plautus Casin. 704. Pausanias IX 21 2 calls the rhinoceros *bos aethiops* (Friedl. Sitteng. II p. 530); and X 13 2 the bison 'Paeonian bull' (ib. p. 532).] *turrito*, thus applied in prose: see Forc. *taetras*: Isid. orig. X 270 '*tetrum* enim veteres pro *fero*, ut Ennius *tetrosque elephantos*'. 1303 *Anguimanus*: see n. to II 537.

1308—1349: bulls boars and lions too were tried in war; but they often turned upon their owners, as elephants are sometimes seen to do now: probably they were employed by the weaker side only in despair. 1310 *partim*: see n. to 1143. 1313 = II 632, except *undique* for *numine*. *undique* refers to *nullo discrimine* of 1312. *capitum cristas*: partly for defence perhaps, partly to strike terror: comp. Livy XXXVII 40 4, of Antiochus' Indian elephants, *ingentes ipsi erant: addebant speciem frontalia et cristae et tergo impositae turres* cet.; [bell. Afr. 86 2 *elephantosque* LX *ornatos armatosque cum turribus ornamentisque captos ante oppidum instructos constituit.*] They were given to men for the same purpose: Livy IX 40 3 *galeae cristatae, quae speciem magnitudini corporum adderent*; X 38 12 *his arma insignia data et cristatae galeae ut inter ceteros eminerent*; 39 12 *non enim cristas vulnera facere.* 1318 *iac. cor. sal.*: Aen. II 565 *corpora saltu Ad terram misere.* 1321 *deplexae* appears not to occur elsewhere, but expresses very vividly the

action in question, 'de eis pendentes eisque implicatae' Turneb. adv. XXX 22. 1324 *lat. ac v. haur.*: 991 *dentibus haustus*: this use of the verb, found in Virgil and often in Ovid, we meet with in prose as early as Claud. Quadr. ap. Gell. IX 13 17 *Hispanico pectus hausit*: Livy VII 10 10, Tacitus and Curtius also have it. 1325 *min. fr.*: Ov. amor. III 13 15 *vituli nondum metuenda fronte minaces.* 1327 1328 an ἐπανάληψις; as in Catull. 62 21 *Qui natam possis complexu avellere matris, Complexu matris retinentem avellere natam*: *In se fracta* then defines more precisely *infracta* of 1327, 'broken off, yes broken off in their own body': see n. to 1189. 1327 *Tela infr.*: Aen. X 731 *infractaque tela cruentat.* 1330 *exibant adactus*: VI 1205 *Profluvium porro qui... Exierat*; 1217 *ut acrem exciret odorem*: Virgil Terence and others have the same constr.: Vitruvius uses the personal passive in the sense of passed through or over: X 9 (14) 3 *quantum diurni itineris miliariorum numero cum raeda posset exiri*; and so Paulus Fest. p. 28 '*ad exitam aetatem*, ad ultimam aetatem'. 1332 *succisa*, the technical word for ham-strung: Livy XLIV 28 14 *nervos succiderunt in litore Macedones. ab nervis* = a parte nervorum, where the tendons were: Cic. in Verr. V 32 *ne denudetur a pectore*; Caes. bell. Gall. VI 28 5 *ab labris argento circumcludunt* cet.; VII 25 2 *scorpione ab latere dextro traiectus*; Q. Cic. comm. pet. 10 *sinistra capillum eius a vertice teneret*; Livy VIII 7 11 *ab iugulo . . terrae adfixit*; Caelius ap. Quintil. IV 2 124 *a cervicibus tollebant*; Suet. Tib. 68 *latus ab umeris et pectore*; Plaut. Men. 1011 *te ab umero qui tenet.* 1333 *terram const.*: Aen. XII 543 *late terram consternere tergo.* 1334 *domi domitos*, an intentional assonance: see n. to I 826 *sonitu sonanti.* [1336 comp. Caes. b. civ. III 69 4 *omniaque erant tumultus timoris fugae plena.*] 1338 *varium genus omne*: VI 363 *Tum variae causae concurrunt fulminis omnes.* 1339 *male mactae*: some editions and lexicons refer *mactae* to *macte* without shewing what connexion in form or sense there is between the two; others make it the same as *mactatae* without any explanation: I take it for the partic. of a verb *macĕre*: Mueller Festus p. 397 seems rightly to restore a fragment of Naevius thus, *namque nullum Peius macit homonem quamde mare saevum*, and to defend *permacĕre* in Ennius: *mactae* then will be 'mauled' 'hacked about': comp. *macellum.*—Conington in an excursus on the word *macte*, Aen. IX 641, explains *male mactae* 'by a reference to such expressions as *mactare malo, infortunio*, etc. Lucr. was using a word which in his time was probably obsolescent, and he well may have wavered between a conception derived from the expressions just quoted, and one founded on the later use of *mactare* in the sense of slaughtering a victim'. I see that the latest editors of Pliny and Curtius read *macti* in the passages he refers to. 1340 *fera facta* N. P. Howard well defends by Ov. met. III 247 *velletque videre, Non etiam sentire canum fera facta suorum*: comp. too Livy epit. 92 *Q. Sertorii multa crudelia in*

suos facta continet. *dedere*, as 1329 *dabant ruinas*: see n. to IV 41. 1341 *adducor ut* for *adducor ad credendum ut*, though not from Lucr., is good Latin: comp. Cic. de fin. I 14 *illud quidem adduci vix possum ut ea quae senserit ille tibi non vera videantur*, and Madvig there who gives other instances. 1345 = 528. 1348 comp. Livy IX 14 15 *perdere prius quam perire optantes.*

1350—1360: weaving came into use after iron which is needed for the instruments employed in it: men first practised it, afterwards women.—See Bluemner Gewerbe u. Kuenste I p. 121 n. 1. 1350 *Nexilis vestis* would be a garment of skins fastened on the body by tying. 1351 the web is prepared with iron, i.e. cannot be woven without instruments of iron; the next two verses explaining this. 1353 *Insilia* might be supposed to be connected with *insilio* and to answer to the treadle, pressed by the weaver's foot: but Creech pertinently remarks that *levia* is not then an appropriate epithet: and iron or steel could hardly be needed for such a purpose: Schneider in his index to the script. rei rust. thinks they are the heddles or leash-rods which open the warp, as Rich records; and this is probable enough. The word is not found elsewhere and its meaning must be guessed. *radii* seem to have performed the office both of shuttle and batten or *pecten* or κερκίς: see Rich's companion: comp. Sen. epist. 90 20 *stamen secernit arundo, Inseritur medium radiis subtemen acutis, Quod lato paviunt insecti pectine dentes.* 1359 *durum*, 1360 *in duro durarent*: 1402 *Duriter et duro*; [comp. Sen. rhet. controv. I 1 21 *durum sensum videbatur non dure posuisse.*]

1361—1378: nature first taught to sow plant and graft: then one kind of culture after another was discovered, and more and more ground brought under tillage. 1361 *specimen* cet.: 186 *ipsa dedit specimen natura creandi.* 1364 *pullorum*: Cato de re rust. 51 *ab arbore abs terra pulli qui nascentur, eos in terram deprimito*: the verb *pullulo* is more common in this sense. *examina* I do not find elsewhere thus applied; though of course the word has various metaph. applications; as may be seen in the lexicons: comp. too Aetna 373 *ventorum examina*; 503 *Emicat examen. suboles proles propago* are similarly transferred from plants to animals. 1367 foll. comp. Virg. geor. II 35 *proprios generatim discite cultus, Agricolae, fructusque feros mollite colendo.* 1368 *mansuescere terram*: see n. to IV 1282. 1369 *indulgendo, colendo*: men are the subject of these gerunds, *terram* of *mansuescere*: see n. to I 312 *habendo.* 1374 *Caerula*, the γλαυκᾶς φύλλον ἐλαίας. 1377 *Omnia*: 1066 *latrant et vocibus omnia complent.* 1378 *Arbustis*: see n. to I 187: Lucr. uses *arbusta* continually for *arbores*, never *arbustis* for *arboribus* which suits his v.: *arbustis* therefore has here its usual meaning, and is nowhere else found in his poem. *opsita circum* and *intersita* are of course set in contrast. Wordsworth in his scenery of the

lakes quotes 1370—1378 and says of them 'Lucretius has charmingly described a scene of this kind'. The description is likewise eminently true of Italy, and is singularly graphic and compressed.

1379—1435: birds taught men song; from the whistling of the zephyr through reeds they learnt to blow through stalks; next the pipe came into use, with which they amused themselves mid other kinds of rustic jollity; with such music watchers would while away the time, and derive no less pleasure than now is gotten from elaborate tunes: then acorns skins and beds of leaves were given up; though fought for once as eagerly as men now strive for purple and gold; lust of gain and cares came next to vex life. 1380 *levia*: Quintil. inst. II 5 9 *quae levis et quadrata, sed virilis tamen compositio*; V 12 18 he shews whence the metaphor comes, *dum levia sint ac nitida, quantum valeant, nihil interesse arbitramur*: *levitas* and λειότης are used in the same way. 1381 *Concelebrare* seems to have the sense it has in Cic. de inv. I 4 *mihi videntur postea cetera studia recta atque honesta, per otium concelebrata ab optimis, enituisse*; see also n. to I 4 *Concelebras*: the sense of often practising or resorting to a thing readily comes from its primary sense: comp. Livy IX 30 8 *per speciem celebrandarum cantu epularum*; [Lucil. XXX 7 *Multis indu locis sermonibu' concelebrarunt*; Q. Cic. de pet. 44 *est in conviviis, quae fac ut et abs te et ab amicis tuis concelebrentur et passim et tributim*; 50 *ad rumorem concelebrandum valent.*] 1383 *cicutas*: Virg. ecl. II 36 *disparibus septem compacta cicutis Fistula.* 1386 *nemora, silvas, saltus*: see n. to 41. 1387 [*loca past. des.*: comp. Virg. geor. III 476; Aen. XI 569; Wordsworth, song at the feast of Brougham Castle, 9th l. from end *The sleep that is among the lonely hills.*] *otia dia*: the meaning of *dia* here is not easy to determine; see n. to I 22 *dias in lum. oras*: does it denote that strange preternatural silence and repose, which you find for instance at the present time in passing on a fine day over the higher table-lands of Arcadia, so eminently now as always *loca pastorum deserta*? or is it *otia sub divo*, if indeed *dia* can bear that meaning? *dia* may indeed have much the same sense as *divinus* in Aen. III 442 *Divinosque lacus*; Prop. I 18 27 *divini fontes.* 1391 *Cum sat. cibi* i.e. ἐπεὶ πόσιος καὶ ἐδητύος ἐξ ἔρον ἕντο. *nam tum*, for then, and not till then, they have leisure to think of mental pleasures. 1392—1396 = II 29—33, with slight changes. 1394 *habebant*, II 31 *curant*: Plaut. capt. 314 *Is, uti tu me hic habueris, proinde illum illi curaverit.* 1398 Virg. ecl. VI 8 *Agrestem... musam.* 1399 *plexis* cet.: Catull. 64 283 *Hos* (i.e. flores) *indistinctis plexos tulit ipse corollis*, with another constr.: comp. the various ways in which *circumdatus* and so many similar words are used in Latin. 1401 *extra numerum*, the opposite of *in numerum*, is found in Cicero: parad. III 26 *histrio si paulum se movit extra numerum*: see n. to II 631 and 636 *in numerum*: orator 195 *extra numerum* has another sense. 1402 *Duriter*: Ov. fasti III 537

duras . . choreas. *terram* cet.: Hor. od. III 18 15 *Gaudet invisam pepulisse fossor Ter pede terram.* 1405 *vigilantibus*, whether because they could not go to sleep or because they were obliged to watch. *solacia somni*: Lach. well compares Aeschylus' ὕπνου ἀντίμολπον ἄκος: but as *somnus* here=*somnus negatus* anyhow, I am not sure that the *somno* of mss. will not stand; but the judgment of Lamb. and Lach. on such a point when they agree is very weighty. [But for *somno* comp. Livy XXV 16 20 *eum decus eximium, egregium solacium suae morti inventurum*: see Draeger hist. synt. I p. 406 on this passage.] 1406 *Ducere, flectere* appear to be technical terms: culex 5 *ducam voces*; Aen. IV 463 *longas in fletum ducere voces*; Ov. amores II 4 25 *Haec quia dulce canit flectitque facillima vocem*; Pliny XVI 171 speaking of *tibiae* says *apertioribus earum lingulis ad flectendos sonos*: Tib. I 7 37 *voces inflectere cantu.* 1407 comp. IV 588 *Unco saepe labro calamos percurrit hiantis.* 1408 *vigiles* must be official watchmen, whether of the camp or the town. 1414 Wak. gives us the choice of two constructions: illa melior res posterior reperta perdit sensus, which he prefers; and, posterior res melior perdit illa reperta; but there is a third course open to us, posterior res melior reperta perdit illa i.e. priora; and that I doubt not is what Lucr. meant: he is sufficiently indifferent to such ambiguities; comp. 1382 *Et zephyri, cava per calamorum, sibila*; and two lines below, *illa relicta Strata cubilia sunt herbis*, and 1418 *vestis* coming between *Pellis* and *ferinae*, and IV 193 *parvola* (neut.) *causa*, and I 414 *ne tarda prius per membra senectus Serpat*: in all these cases we are left to the sense alone to guide us. 1421 *Et tamen*, and after all when they had killed the owner, they got no good from it. 1422 *convertere*: comp. IV 1130 *vertunt*, and n. to III 502 *reflexit*: Cic. Brutus 141 *hoc vitium huic uni in bonum convertebat*; pro Plancio 50 *non dubito quin omnis ad te conversura fuerit multitudo.* 1428 *auro* cet. i.e. large figures worked in with gold. 1429 *plebeia*: II 36 *in plebeia veste*: Hor. sat. I 3 14 *toga quae defendere frigus, Quamvis crassa, queat.* 1432 *hab. Finis*: culex 84 *finem transcendat habendi.* 1433 *quoad crescat*, after which it becomes excess. 1434 *provexit*, a technical expression for carrying a ship out to sea. 1435 see n. to 1290.

1436—1439: the sun and mooon taught men the seasons of the year. 1436 *magnum versatile*: for the double epithet see n. to 13 and I 258. *versatile*: see n. to 505: Lach. observes '*versatile* non magis *templum* esse potest quam *locus*'; but I 1105 *Nere ruant caeli penetralia templa superne*; VI 285 *displosa repente . . templa*: if a thing can tumble down or burst in pieces, it surely can revolve. 1437 *lustrantes* cet.: comp. Cic. Arat. 237 *Quattuor aeterno lustrantes lumine mundum Orbes stelligeri* cet.

1440—1447: then came walled towns, division of lands, ships, treaties between states; and, when letters were invented, poetry.

1442 *florebat*: I 255 *laetas urbes pueris florere videmus*; Val. Flaccus I 537 *Iam pridem regio...Undat equis floretque viris*; VII 77 *armata florescant pube novales*; see also n. to IV 450. 1445 foll.: comp. 326 foll.

1448—1457: thus by degrees experience taught men all the useful and graceful arts, one advance suggesting another, till perfection was attained. 1450 *Praemia*: III 956 *Omnia perfunctus vitai praemia.* 1452 *Usus* cet.: Virg. geor. I 133 *Ut varias usus meditando extunderet artes Paulatim*; Manil. I 61 *Per varios usus artem experientia fecit, Exemplo monstrante viam.* 1453 *ped. progr.*: 533 *hautquaquamst pedetemtim progredientis.* 1454 *Protr. In med.*: Aen. II 123 *Protrahit in medios.* 1456 *et ordine* shews in what way one thing after another is to come into the light: it=the *paulatim* of 1454.

BOOK VI

1—42: Athens first gave mankind corn and laws; but better than all him who, when he saw that men had all the necessaries and refinements of life and yet were miserable, taught them true wisdom and the way to true happiness and rid them of empty cares and fears. 1 *Primae* cet.: of many similar panegyrics take Cic. pro Flacco 62 *adsunt Athenienses, unde humanitas doctrina religio fruges iura leges ortae atque in omnes terras distributae putantur*; [Aristotle in Diog. Laert. V 17 (quoted in Bernays' Phokion p. 94).] *mortalibus aegris* is found in Virgil more than once. 4 *solacia* cet.: so V 20 of Epicurus *Ex quo nunc etiam per magnas didita gentis Dulcia permulcent animos solacia vitae.* 5 *cum corde*: see n. to I 755. 7 *et*: there is no real distinction between *et* for *etiam*, and, as Lach. explains it, *et eius extincti*: it is in vain to dispute Lucretius' use of *et* for *etiam*; even the auctor ad Heren who wrote many years before Lucr. says IV 3 *hoc igitur ipsum maximum artificium est in arte sua posse et alienis exemplis uti.* 8 *ad caelum*: κλέος οὐρανὸν ἵκει. 11 *proquam*: see n. to II 1137. 13 *excellere* seems used in the sense it has in Cato, cited by Gellius twice, *scio solere plerisque hominibus rebus secundis atque prolixis atque prosperis animum excellere* cet.: and in Livy VI 37 11 *quippe ex illa die in plebem ventura omnia, quibus patricii excellant, imperium atque honorem, gloriam belli, genus, nobilitatem*: comp. the use of *celsus* for *superbus.* [Or *excellere* may have here and Livy l. l. the same sense as in Cic. epist. XIII 12 2 *quam maxime eius excellat industria.*] 14 *Nec* cet. i.e. et tamen nemini minus esse. 15 *ingratis*: see n. to III 935 *gratis.* *animi ingratis*: Plaut. merc. 479 *tueis ingratieis*; Cas. II 5 7 *Vobis invitis atque amborum ingratiis.* *anxia corda* is the subject of *vexare*: in spite of the *animus*, or controlling reason, the *anxia corda* vexes life with its fears and cannot

help (*cogei*) giving vent to the bitterest complaints: for the contrast of *animus* and *corda* comp. Plaut. aulul. 380 *Postquam hanc rationem ventri cordique edidi, Accessit animus.* 16 *Pausa* we have had already five times. *infestis* has pretty nearly the force of *saevis*: they are complainings expressing hatred and hostility towards nature and the condition of things. 17 *Intellēgit*: the best mss. of Sallust have *intellēgit* in Iug. 6 2, and *intellegerint* in hist. I 41 23: Cat. 51 24 Jordan on good authority gives *neglegeris*; and Iug. 40 1 *neglegisset*. *vas* cet.: III 936; Hor. epist. I 2 54 *Sincerum est nisi vas, quodcumque infundis acescit.* Here again stoic and epicurean meet: Gellius XVII 19 ἄνθρωπε, ποῦ βάλλεις; σκέψαι εἰ κεκάθαρται τὸ ἀγγεῖον· ἂν γὰρ εἰς τὴν οἴησιν αὐτὰ βάλλῃς, ἀπώλετο· ἢν σαπῇ. οὖρον ἢ ὄξος γένοιτο ἢ εἴ τι τούτων χεῖρον. *nil profecto his verbis gravius, nil verius, quibus declarabat maximus philosophorum* (i.e. Epictetus) *litteras atque doctrinas philosophiae, cum in hominem falsum atque degenerem, tamquam in vas spurcum atque pollutum, influxissent, verti mutari corrumpi et, quod ipse* κυνικώτερον *ait, urinam fieri aut si quid est urina spurcius.* 19 *conlata foris* and *commoda* are opposed to *illius vitio corrumpier intus*: they come from without and they are too in themselves good and salutary; therefore it is the *vas ipsum* alone that is in fault, and not the things which come into it: thus the heart of man is to blame, not what nature gives to it: the copula *et* adds much to the force of the antithesis. 20 *fluxum* which means loose, falling to pieces and the like, applied to an earthen vessel can hardly have any other sense than leaky: III 1009 *laticem pertusum congerere in vas, Quod tamen expleri nulla ratione potestur.* 23 with the position of *intus* comp. V 572 *videri, Nil adeo, ut possis plus aut minus addere, vere*: on *intus* see n. to III 171: there and I 223, II 711 and IV 1091 *intus* has its proper force; though here to join *intus* with *receperat* would be the more natural collocation of the words; and even Lamb., though he suggests the punctuation which Lach. and I have adopted, adds 'aut *intus* pro *intro* accipiendum quod huic scriptori non esse inusitatum iam ante admonuimus': Ovid met. X 457 *Iamque fores aperit, iam ducitur intus, intus* must surely = intro; yet Quintil. I 5 50 says pointedly '*eo* tamen *intus* et *intro sum* soloecismi sunt'; and before him Lucilius IX '*Intro* nos vocat ad sese, tenet *intus* apud se'.

24 *purgavit*: V 43 *At nisi purgatumst pectus, quae proelia . . Quantae tum scindunt hominem cuppedinis acres Sollicitum curae quantique perinde timores*: Epic. Diog. X 142 says more harshly εἰ τὰ ποιητικὰ τῶν περὶ τοὺς ἀσώτους ἡδονῶν ἔλυε τοὺς φόβους τῆς διανοίας τούς τε περὶ μετεώρων καὶ θανάτου καὶ ἀλγηδόνων, ἔτι τε τὸ πέρας τῶν ἐπιθυμιῶν ἐδίδασκεν, οὐκ ἄν ποτ' εἴχομεν, ὅ τι μεμψαίμεθα αὐτοῖς πανταχόθεν εἰσπληρουμένοις τῶν ἡδονῶν κ.τ.λ.: Hor. epist. I 16 65 *qui cupiet, metuet quoque*: Seneca has many similar commonplaces. 25 *finem* within which they may be indulged;

beyond which peace of mind cannot exist. 26 *bonum summum*, being in great measure the *finem cupp. atque tim.* of 25: Epic. l. l. 128 refers this ἐπὶ τὴν τοῦ σώματος ὑγίειαν καὶ τὴν τῆς ψυχῆς ἀταραξίαν, ἐπεὶ τοῦτο τοῦ μακαρίως ζῆν ἐστὶ τέλος...τὴν ἡδονὴν ἀρχὴν καὶ τέλος λέγομεν εἶναι τοῦ μακαρίως ζῆν. But, like Lucr., he goes on to explain that, when he says pleasure is the end and chief good, he does not mean such pleasure as the ignorant or malevolent allege he does, but, l. l. 131 τὸ μήτ' ἀλγεῖν κατὰ σῶμα μήτε ταράττεσθαι κατὰ ψυχήν, and 132 νήφων λογισμὸς καὶ τὰς αἰτίας ἐξερευνῶν πάσης αἱρέσεως καὶ φυγῆς καὶ τὰς δόξας ἐξελαύνων κ.τ.λ., but above all φρόνησις ἐξ ἧς αἱ λοιπαὶ πᾶσαι πεφύκασιν ἀρεταί, διδάσκουσαι ὡς οὐκ ἔστιν ἡδέως ζῆν ἄνευ τοῦ φρονίμως καὶ καλῶς καὶ δικαίως, οὐδὲ φρονίμως καὶ καλῶς καὶ δικαίως ἄνευ τοῦ ἡδέως· συμπεφύκασι γὰρ αἱ ἀρεταὶ τῷ ζῆν ἡδέως καὶ τὸ ζῆν ἡδέως τούτων ἐστὶν ἀχώριστον: when to this is added what the stoical Seneca records epist. 66 18 *Epicurus quoque ait sapientem, si in Phalaridis tauro peruratur, exclamaturum 'dulce est et ad me nil pertinet'*, we may doubt whether a stoic could go much farther. 27 *tramite parvo*, by a short and straight cross-cut, which the vulgar cannot find: II 9 *passimque videre Errare atque viam palantis quaerere vitae*; Hor. sat. II 3 48 *ubi passim Palantes error certo de tramite pellit* cet.: we have here three ablatives together: see n. to I 183. 31 *Seu casu seu vi* are two expressions for the same thing, the inexorable chance or necessity, called V 77 *natura gubernans*, 107 *fortuna gubernans*, by which all things go on; ὅλως πρόνοιαν μὴ εἶναι μηδὲ εἱμαρμένην, ἀλλὰ πάντα κατὰ αὐτοματισμὸν γίνεσθαι, says Hippol. ref. haer. I 22 of Epicurus: see n. to V 77; and 1233 *vis abdita quaedam*: the auctor ad Heren. and Cicero join *casu et natura, natura casuque*: the κατ' αὐτοματισμόν is *naturali casu*; or II 1059 *Sponte sua forte offensando semina rerum Multimodis temere incassum frustraque coacta.* *nat. par.*: l. l. *hic sit natura factus* i.e. orbis, and yet by mere chance at first. 32 *quibus e portis* cet.: an obvious military metaphor. 34 *Volvere* cet.: 74 *magnos irarum volvere fluctus*; III 298 *Nec capere irarum fluctus in pectore possunt*, where see n. 35—41 = II 55—61. 42 comp. I 418 *ut repetam coeptum pertexere dictis*, where see n.

43—95: once more I mount my chariot, to tell what remains to be told of the things which go on above us, and to dispel the causeless fears of men who believe such things to be tokens of divine wrath: the gods will indeed plague you, if you so believe; not that they will themselves do you any hurt, but the images proceeding from their holy bodies will stir up these vain fears and poison existence. I have now therefore to sing of thunder, of tempests, of other things that take place in the sky. 43 *docui* cet., V 91—415. 46 *ressolui*: see notes 1 and n. to V 773 *resolvi*: *dissolui* cannot be defended by IV 500 *dissolvere causam*, which has there a technical and quite different force; yet it is to be noted that Lucr. once, II 381, uses *exsolvere* in this sense, and he seems to be singu-

lar in so using it. [But now I find *dissolui* supported by Arnob. I 11 *hoc et illud est in mundo malum, cuius explicare, dissolvere neque originem valeas neque causam*: the *dis-* is omitted in the old editions.] *percipe porro* occurs Aen. IX 190. 47 comp. Manil. V 10 *Cum semel aethereos iussus conscendere currus Summum contigerim sua per fastigia culmen*; for he is commencing his last book: *insigni curru* is in the culex 127: [on the metaphor of a chariot for poetry as opposed to the πεζὸς λόγος, *sermo pedestris*, see Bergk Gr. Lit. Gesch. I p. 389 n. 221.] 47—49 see notes 1. 48 *ex ira ut plac.*: Aen. VI 407 *tumida ex ira tum corda residunt.* 51 comp. Cic. Tusc. disp. IV 35 *exanimatusque pendet animi. saepe* here too seems to mean *ut saepe fit*: see n. to V 1231. 52 *Et* (quae) *faciunt*: the nom. *quae* supplied from the *quae* of 50; just as in 45 *quaecumque in eo fiunt fierique necessest*, the accus. is supplied from the nomin.: see Madv. de fin. V 26; and comp. V 898: Aen. VI 283 is very similar, *quam sedem somnia volgo Vana tenere ferunt foliisque sub omnibus haerent*; but harsher, as the forms of the cases there differ: where they are the same, the constr. is very common. 50 foll. comp. Epic. in Diog. X 78 foll. esp. 79 τοὺς φόβους ἔχειν τοὺς ταῦτα κατιδόντας, τίνες δ' αἱ φύσεις ἀγνοοῦντας καὶ τίνες αἱ κυριώταται αἰτίαι κ.τ.λ. 53 *Depressos, premunt*: perhaps the difference of form makes this tautology less harsh; the metaphorical force too is more prominent in *depressos*, the literal in *premunt.* 58—66 are repeated word for word from V 82—90: see the remarks to those vss.; much that is there said applies here as well: 35—41 are we saw likewise a mere repetition; as are 87—89 below; and the whole paragraph has much of that disjointed character of which we there spoke, as characteristical of so many of his introductory passages; nor in stating, 83 foll., what is to be the subject of this book does he refer to one half of the questions really discussed; though a little before, 50 *Cetera quae fieri in terris caeloque* cet., he seems to promise the rest of the book, nay a good deal more than he fulfils: 56 57 and 90 91 may have been inserted by the interpolator; or they may have been marginal annotations of the author, who felt this portion of his poem to be unfinished, and thought that these vss. which come from I 153 154, might in the end adapt themselves to one of these places. 66 *rationi*: comp. II 520 *mucroni*: I find in the inscr. Lat. I the abl. *conventionid deditioni proportioni sanctioni*, also *hereditati heredi marmori nomini* and *salutei virtutei faenisicei*, as well as the more common *parti partei luuci luci sorti silici.* 69 *putare* is for an accus. subst.: see n. to I 418 *repetam pertexere* and 331. *indigna putare alienaque* is not a common construction, but Lach. illustrates it from Cic. Cato 4 *quis coegit eos falsum putare* and Aen. VIII 522; Forc. from Virgil and Terence: comp. too Cic. pro Sest. 22 *quantum ipse cum republica sensi, numquam putavi*; ad Att. IX 18 1 *illa fefellerunt, facilem quod putaramus*; XIV 10 2

in quibus plus virtutis putarunt, quam experti sunt; Ov. trist. v 10 41 *in me aliquid...putant.* 70 *Delibata*, used in a sense naturally flowing from what the word has III 24, 1088, VI 621: Hav. well compares auctor ad Heren. IV 68 *ille nulla voce delibans insitam virtutem concidit tacitus.* 72 *petere inbibat*: III 996 *Qui petere a populo fasces saevasque secures Imbibit.* 73 *cum pace*: see n. to I 287 *validis cum viribus.* Martha, p. 42, comments well on the perpetual cry of Lucr. for peace! peace!: here, he says, within 10 vss., 69—78, the word occurs three times: comp. also II 647, III 24, V 1155, 1203, 1229, 1230. 74 *volvere* cet.: 34 *Volvere curarum tristis in pectore fluctus*: see note there; and Virgil and Livy cited to III 298. 75 *plac. cum pectore*: comp. 5 *tali cum corde*, and n. to I 775; though perhaps this resembles more the use of *cum* illustrated at I 287 *validis cum viribus*, being a modal abl. rather than one of quality; as 73 *cum pace.* 76 *simulacra* cet.: comp. V 1169 and explanations given there. 83 *ratio caeli speciesque* means both the internal causes and the external aspect of what takes place above our heads: comp. his oft-repeated formula *naturae species ratioque. tenenda*=intellegenda: see n. to II 1173 *Nec tenet*; and comp. Cic. pro Sest. 22 *etiam sermones ansas dabant, quibus reconditos eius sensus tenere possemus*, which well illustrates how the word got this meaning which exactly suits our passage. 86 *caeli div. par.* cet.: comp. Cic. de div. II 42 *quid est igitur quod observatum sit in fulgure? caelum in sedecim partis diviserunt Etrusci. facile id quidem fuit, quattuor quas nos habemus duplicare; post idem iterum facere ut ex eo dicerent, fulmen qua ex parte venisset*; 45 *caeli enim distributio quam ante dixi et certarum rerum notatio docet unde fulmen venerit, quo concesserit; quid significet autem nulla ratio docet*: Pliny II 143 is even more precise, *in sedecim partes caelum in eo respectu divisere Tusci. prima est a septentrionibus ad aequinoctialem exortum* cet. *itaque plurimum refert unde venerint fulmina et quo concesserint, optimum est* cet.: comp. too 381 foll. where these vss. are repeated. [See Mayor to Juv. XIII 62.] 87 *in utram* appears to be explained by Pliny l. l. *ex quibus* (i.e. sedecim partibus) *octo ab ortu sinistras, totidem e contrario appellavere dextras*: it will mean, whether into the half on the right or that on the left; unless it is rather into which of two disputed quarters. 88 *partim*, as 384: see n. to I 1111; inscr. Lat. I 187 *aidiles vicesma parti Apolones dederi* i.e. vicesimam partim Apollinis dedere: it is found even in Livy XXVI 46 8 *partim copiarum ad tumulum expugnandum mittit, partim ipse ad arcem ducit. quo pacto*, 89 *ut*; because on minute observation of all the above points hung the interpretation of what the lightning portended: to get a notion of the subtleties connected with this art read Sen. nat. quaest. II 49, 50. 89 *dominatus*: 224 *Et celeri flamma dominantur in aedibus ipsis.* 92 *praescribta*:

489 *elabsa*: contrary to what many seem to suppose, this retention

of *b* for *p* in such words is very rare in our oldest authorities; thus the inscr. Lat. I always has *scriptus*: the *b* seems to have become more common in the silver age, artificially recalled no doubt: the best mss. of Virgil however have sometimes the *b*, as geor. I 200 *sublabsa* M P and the new frag. A published by Pertz: the above remarks apply to *adque* for *atque*; see n. to II 881. *calcis*: see Forc. and Seneca and Pliny cited by him; and comp. Varro sat. men. 288 Buech. *Nemini fortuna currum a carcere intimo missum Labi inoffensum per aequor candidum ad calcem sivit.* 93 *call. musa Calliope*: Empedocles in a new frag. in Hippol. ref. haer. VII 31, which probably was at the beginning of the third and last book of his poem, has ἄμβροτε μοῦσα...νῦν αὖτε παρίστασο, Καλλιόπεια, κ.τ.λ. 95 *ins. laude*: Livy VII 38 3 *sequente Decio insigni cum laude donisque*; Aen. I 625 *insigni laude ferebat. cum l. c.*: Hor. sat. I 10 49 *Haerentem capiti cum multa laude coronam.*

96—120: thunder comes from the collision of clouds; the denser they are, the deeper the rumbling; sometimes the noise is like that of a sheet of canvas blown about, sometimes like the crackling of paper; sometimes the clouds graze each other sideways and occasion a dry protracted sound.—We again come to matters beyond the certain test of sense; of which therefore many explanations may be and consequently are equally true: the remarks appended to V 533 will apply here and to what follows. 99 *Nec fit enim* i.e. *nec enim*, or *neque enim fit.*
105 *Nam cadere aut* for *nam aut cadere*, an idiomatical irregularity such as all Latin and Greek writers allow themselves, and which cannot be refused to Lucr.: indeed II 393 *Aut quia* cet. is of much the same character; and V 383 *vel cum sol* is more violent; see n. there. *bruto*: Paulus Fest. p. 31 '*brutum* antiqui gravem dicebant'. 108 *aeq. mun.*: Accius 223 *Sed quid tonitru turbida torvo Concussa repente aequora caeli Sensimu' sonere.* 109 *Carbasus* cet.: comp. IV 75; and see note there. 112 *commeditatur* seems not to occur for certain anywhere else; it must mean, to get up and practise a subject, and thus represent or imitate it. 112—115: the punctuation must be noted: in 112 *fragilis* denotes the scraping rasping noise made by tearing papyrus: in Virg. ecl. VIII 83 it denotes the crackling noise of burning laurel; in Prop. V (IV) 7 12 the rattling made by a skeleton's hands; words denoting sounds being vague in Latin: *sonitus* of course is uncertain. Then 114 115 have the appearance of a subsequent addition; for 116 seems to refer to 113: the kind of thunder resembling the noise of torn paper or canvas. As they stand, it seems you must take the constr. to be 'Aut ubi . . per auras, id quoque genus cognoscere possis'; unless it be better to refer the *Aut* to 109 'ut carbasus, aut ut suspensa vestis chartaeque volantes, ubi eas cet.' so that it would be an instance of that Lucretian idiom illustrated in n. to I 15: in 114 *que* need not be changed to *ve*: see n. to II 825. 119 *Aridus—ducitur*: the sound well represents the

sense. *Aridus*: Virg. geor. I 357 *aridus altis Montibus audiri fragor*; Homer has αὖον ἀΰτευν and καρφαλέον ἄυσεν: the *aridus sonus* seems to be the sound which is like torn paper or canvas.

121—131: sometimes the thunder makes a noise like the crack of doom, when a storm of wind eddies round within a cloud and hollows it out, until at last it explodes with a frightful crash. 123 *mundi* must = caeli, or aetheris: see n. to I 73. 124 *ven. proc.*: 293 *ventique procella.* 125 *intorsit* is more emphatic than *involvit.* 127 *spisso cava*, the greater the hollow, the denser the crust. 129 *perterricrepo*: see introd. to notes 2 p. 16 17. *scissa* i.e. nubes: Isidor. orig. XIII 8 paraphrases this passage; he too seems to have read *missa*; see Lach.: Pliny nat. hist. II 113 *posse et...spiritum nube cohibitum tonare, natura strangulante sonitum dum rixetur, edito fragore cum erumpat, ut in membrana spiritu intenta*, might also seem in favour of the ms. reading *missa*; yet Lach. must I think be right. 130 *cum . . dat*: comp. 140 and see n. to I 566: to see with what indifference the indic. and subj. are used in such cases, comp. Catull. 66 47 *Quid facient crines, cum ferro talia cedant*, with Virg. ecl. III 16 *Quid domini faciant, audent cum talia fures* and Ov. ars III 655 *Quid sapiens faciet, stultus cum munere gaudet*: Virgil being a reminiscence of Catullus, Ovid of Virgil. 131 *torvum son.*: Aen. VII 399 *torvumque repente Clamat*; Sil. XI 99 *torvum exclamat Marcellus*; Apul. flor. p. 79 *voce hominis et tuba rudore torvior* cet.: the first blunder of our archetype is *tergis* for *pergis*; comp. too 237 *tellens* for *pellens*, and I 1105 *tonetralia* for *penetralia*: *torvum* answers to *perterricr.* of 129.—Epic. himself in Diog. X 100 foll. gives a brief summary of the possible causes first of thunder, then of lightning, and then of the other heavenly phenomena, πρηστῆρες etc. which Lucr. discusses: the two are generally in close accordance.

132—159: thunder may likewise come from winds blowing through rough branchy clouds; or from the wind bursting the cloud by a direct onset; or waves may break in the clouds, like those on the sea; or the hot bolt may fall into a wet cloud and hiss like hot iron; or into a dry one and make it crackle like bay-leaves in the fire; again the crash of hail and ice in the clouds compressed by the wind may be the cause. 132 *Est ratio, ut*: 639 *Nunc ratio quae sit, per fauces montis ut Aetnae Expirent ignes*: a very rare constr. which Wak. calls 'pervagata dicendi formula'; not needing then illustration, as he gives none: V 715 on the other hand *Est etiam quare possit* = est etiam ut possit; and is not used as 730 *sit cur*, where *cur* has its proper force. 140 *cum haurit*: see n. to 130 and I 566 *cum constant* and II 29. 141 *evolvens* = eruens: see Seneca Lucan and Plautus in Forc. 147 *trucidet*, a bold and telling metaphor. 148 *Ut calidis* cet.: Pliny II 112 *cum vero in nubem perveniunt, vaporem dissonum gigni ut candente ferro in aquam demerso et fumidum verticem volvi; hinc nasci procellas*: the words are very like

those of Lucretius; he just before uses *strident*, as Lucr. *Stridit*; but this form of the verb was always in common use: Lucil. VII 32 Muell. reads *fulgit uti caldum ec fornacibu' ferrum.* *Ut..olim, ubi*: *ut olim* is found in Lucil. III 5 and VII 14 Muell.; Hor. sat. I 1 25: *olim, ubi* in Aen. V 125: *olim, cum* is often so used. 149 *imbrem*: see n. to I 715. 154 *Delph. l.* described by Pliny XV 127: see Cato de re rust. 8 2, and 133 2. 155 *flamma* cet.: Aen. VII 74 *flamma crepitante cremari.* 156 *geli*: see n. to V 205. 158 *confercit*: except in the partic. *confertus*, this verb is rare: for the constr. of this v. comp. n. to III 843; and Catull. 44 7 *expuli tussim, Non inmerenti quam mihi meus venter, Dum sumptuosas appeto, dedit, cenas*; 66 18 *Non, ita me divi, vera gemunt, iuerint*; Lucan I 13 *parari Hoc, quem civiles hauserunt, sanguine, dextrae.*

160—172: the flashes of lightning are struck out by the collision of clouds: the flash is seen before the clap is heard, because light travels faster than sound.—From 96 to 159 he has been speaking of the *tonitru*, the clap of thunder: he now, 160 to 218, explains the *fulgur* or flash of lightning: then 219—422 he discusses the *fulmina*, the actual strokes or bolts or fires of thunder, or whatever it is to be called: comp. Sen. nat. quaest. II 12 *tria sunt quae accidunt, fulgurationes fulmina tonitrua quae una facta serius audiuntur. fulguratio ostendit ignem, fulminatio emittit. illa, ut ita dicam, comminatio est, conatio sine ictu; ista iaculatio cum ictu*; and 16 *fulguratio est late ignis explicitus, fulmen est coactus ignis et impetu iactus*; and 21 he says the *fulguratio* would be *fulmen, si plus hausisset virium. non natura ista, sed impetu distant*; and 57 3 *fulmen est fulgur intentum.* βροντή, ἀστραπή, κεραυνός are the corresponding Greek words. 160 *Fulgit*: Sen. l. l. 56 2 *illo verbo utebantur antiqui correpto, quo nos producta una syllaba utimur; dicimus enim ut* splendēre *sic* fulgēre. *at illis ad significandam hanc e nubibus subitae lucis eruptionem mos erat correpta media syllaba uti, ut dicerent* fulgĕre. Lucretius' practice seems to bear out what he says: 160, 174, 214, 218 *fulgit*; 165 *fulgĕre*: also V 1095 *Fulgĕre, cum caeli donavit plaga vapore*, is virtually in point: but II 27, where see note, V 768 *fulget*; VI 213 *quae faciunt flammae fulgere colores*; II 800 *refulget.* I confess that on a point like this I prefer the authority of Seneca backed up by our mss. to that of Lachmann who arbitrarily changes the 2nd conj. of the mss. to the 3rd just in those cases where Seneca and common usage support the former. Epic. l. l. 101 foll. treats of ἀστραπή or lightning. 164 *tonitrum*: Sen. l. l. 56 *nos* tonitrua *pluraliter dicimus, antiqui autem* tonitrum *dixerunt aut* tonum. 166 there is a slight anacoluthon here: *visum quae moveant* for *ad visum*; so that you must supply *adveniunt* [res quae aures moveant] *quam* [ad visum] *visum quae moveant res.* Wherever the point depends on an inference from personal observation, Lucretius, as here, puts it well and clearly and

truly. Pliny I 142 *fulgetrum prius cerni quam tonitrua audiri, cum simul fiant, certum est, nec mirum, quoniam lux sonitu velocior.* 168 *arboris auctum* seems a poetical periphrasis for *arborem* ; but it probably implies at the same time a large object ; as II 482 *infinito corporis auctu* ; V 1171 *mirando corporis auctu.* 170 *fulgorem*: Lach. quotes Cic. de div. II 82 *fulgoribus* in a translation from Homer, and Aen. VIII 524 *fulgor* for lightning; but he adds that Lucr. here and 217 uses it in its literal sense, rather than in that of lightning: the latest editor reads in Cicero's prose l. l. 43 *fulgoribus*, 44 *fulgores*, 49 *fulgoribus* ; but in each case the reading seems doubtful: Ov. met. VII 619 *notam fulgore dedit tonitruque.* 171 *pariter—eodem*: Pliny l. l. expresses by *cum simul fiant* what Lucr. emphasises in a line and a half.

173—203: I explained before how the wind eddying about within a cloud would hollow it out: well the rapid motion heats this wind; and when it escapes from the cloud, it scatters about its seeds of fire: thus you first see the flash, and then hear the noise: this takes place when the clouds are piled up high one on the other; the winds within these make a great roaring and gather flame within them, as in a furnace, till at last they burst out. 176 *Fecit ut ante cavam docui*: Lamb. compares for the involved structure I 758 *quid a vero iam distet habebis*: see also VI 158 *cum confercit franguntur in artum Concreti montes*; and n. to III 843. *ante*, i.e. 124 foll. *spissescere*, a rare word found also in Celsus. 177 *Mobilitate* cet.: another acute inference drawn from personal observation. 179 *volvenda*: see n. to V 514. *liquescit*: Sen. nat. quaest. II 57 2 *sic liquescit excussa glans funda et adtritu aeris velut igne distillat*; Ovid met. XIV 825 *lata plumbea funda Missa solet medio glans intabescere caelo*; Lucan VII 513 *ut calido liquefactae pondere glandes*: Virg. Aen. IX 588 must mean the same thing by *liquefacto plumbo* ; nay Arist. de caelo II 7 οἷον καὶ ἐπὶ τῶν φερομένων βελῶν· ταῦτα γὰρ αὐτὰ ἐκπυροῦται οὕτως ὥστε τήκεσθαι τὰς μολυβδίδας. [See too Bergk Roem. Schleudergeschosse p. 97.] 182 *nictantia*: the fitful force with which the seeds are driven out causes this bickering. 184 twice before we have had *oculorum lumina*, and once *oculorum lumine.* 186 *impete*: see n. to IV 416. 187 *frudi*: II 187 *frudem* B, perhaps from Lucr.; Aen. IV 675 *frude* P; ecl. IV 31 *frusdis* R: for *frudare* and *defrudare* in Terence and Plautus see Ritschl trin. 413 and parergon p. 541. 188 *lata*, *extructa*: on these neuters referring to *nubibus* comp. 757 *Quadripedes*, 759 *si sint mactata*: and n. to I 352 *totas*, referring to *arbusta*: on the other hand 215 *eas*, though *nubila*, not *nubes*, immediately precedes. *quid* = quantum. 189 *Contemplator enim, cum* occurred II 114. *adsimulata*, and *simulata* in same sense, always spelt in our mss. with *u*. 191 *cumul. Insuper aliis alia*: 521 *aliis aliae nubes nimbique rigantes Insuper . . feruntur* ; 1283 *suos consanguineos aliena rogorum Insuper extructa . . locabant*;

Aen. IX 274 *Insuper his*; Livy XXII 2 8 *sarcinis insuper incumbebant*; auctor dirarum 170 *Purpureos flores, quos insuper accumbebat*: for *insuper* with accus. and abl. in Cato and Vitruvius see Forc.: inscr. Lat. I 577 of the year U.C. 649 has *insuper* with an accus. several times. 193 *sepultis*: Cicero has more than once *bellum sepultum*. 195 *Speluncasque*: Ennius(?) in Cic. Tusc. disp. I 37 *Per speluncas saxis structas asperis pendentibus*; Aen. I 166 *scopulis pendentibus antrum*. 197 for rhythm comp. n. to II 1059. *magno* cet., 199 *fremitus*: Aen. I 55 *Illi indignantes magno cum murmure montis Circum claustra fremunt*. 199 *fremitus*, keeping up the illustration of wild beasts. 201 *convolvunt*: comp. Sen. epist. 94 67 *turbinum more qui rapta convolvunt, sed ipsi ante volvuntur et ob hoc maiore impetu incurrunt*. 197—203 are a good example of Lucretius' powers of graphic description.

204—218: fire of a clear gold colour sometimes darts down to the earth, because the clouds have in them many atoms of fire, and draw many from the sun; when therefore they are compressed by the wind, they emit these seeds of flame without noise or disturbance. 204 *Hac etiam fit uti de causa* = hac etiam de causa fit uti: comp. 727 and n. to II 1004. 205 *liquidi ignis* compared by Macrob. with Virg. ecl. VI 33 *Et liquidi simul ignis*: 349 *liquidus quia transcolat ignis*. 206 *ipsas* opposed to the *Quin etiam solis* of 209. 211 *contrusit*, *Compressit*, *cogens* his favourite pleonastical assonance; followed by *expressa* which answers to *compressit*. 213 *fulgĕre*: see n. to 160 *Fulgit*, and II 27 *fulget*: Lach. to maintain his own consistency in regard to the conjugation of *fulgere* forces on Lucr. a monstrous inconsistency; for *fulgore* can only mean that the atoms of fire produce the colour of flame by their own brightness, though Lucr. in II took such vast pains to prove that atoms could not have colour or any other secondary quality: the atoms by their action 182 *faciunt nictantia fulgura flammae*, and 217 *faciunt fulgorem*; so here too *faciunt flammae fulgere colores*, which is the same thing. 215 *eas*: see n. to 188.

219—238: the marks left by the thunderbolts themselves prove them to be of the nature of fire: this fire consists of atoms of extreme fineness, which nothing is able to stop; they are far more powerful than those of the sun.—He now, as we observed at 160, comes to the *fulmina*, having discussed first the *tonitru* or clap, and then the *fulgur* or flash: see n. to 160, where this was fully illustrated. 220 *ictus*, like *vulnera* and cognate words, sometimes denotes the result of the stroke as well as the stroke itself: indeed if the results are lasting, as in the cases here specified, it is impossible to separate the two meanings. 221 *halantis* is best taken as the nom. plur.: notae halantes gravis auras sulpuris. *sulpuris*: Pliny XXXV 177 *fulmina et fulgura quoque sulpuris odorem habent, ac lux ipsa eorum sulpurea est*; Sen. nat. quaest. II 53 2 *quocumque decidit fulmen, ibi odorem esse sulpuris certum est, qui quia*

gravis est cet.: comp. too Isid. de rer. nat. 30 4. 224 *dominantur*: 89 and 385 *hinc dominatus ut extulerit se.* 225 *cum primis ignibus* is the same as *cum primis.* Plut. sympos. IV 665 F τὸ κεραύνιον πῦρ ἀκριβείᾳ καὶ λεπτότητι θαυμαστόν ἐστιν, αὐτόθεν περὶ τὴν γένεσιν ἐκ καθαρᾶς καὶ ἁγνῆς ἔχον οὐσίας κ.τ.λ. 228 *Transit* cet.: comp. I 489 *Transit enim fulmen caeli per saepta domorum, Clamor ut ac voces* with 354 *Inter saepta meant voces et clausa dom. Transvolitant*: it must be admitted that the words repeated from I are not fit examples of the extreme force of lightning: if they do come from the poet, it may have been an inadvertence which he would have corrected. II 384 *caelestem fulminis ignem Suptilem magis e parvis constare figuris Atque ideo transire foramina quae nequit ignis Noster hic* cet. 230 *liquidum* cet.: Sen. nat. quaest. II 31 *loculis integris conflatur argentum. manente vagina gladius ipse liquescit* cet.; and so Pliny II 137 *aurum et aes et argentum liquatur intus* cet. 231 *Curat* cet.: Pliny l. l. *fulminum ipsorum plura genera traduntur...tertium est quod clarum vocant, mirificae maxime naturae, quo dolia exhauriuntur intactis operimentis nulloque alio vestigio relicto*: 'see Dio Cass. 57 14 and Fabric. there' J.E.M. *Curat, Diffugiant* is a constr. sufficiently attested, as by Hor. od. I 38 5 *nihil adlabores Sedulus, curo*; sat. II 6 38 *Imprimat his cura*; [Lucil. XXX 46 *curate domi sint.*] 233 *Conlaxat* seems not to be found elsewhere. *rareque facit*: comp. 962 *et facit are. lateramina* does not elsewhere occur except in Marcianus Capella's quotation: the meaning must be guessed, but can hardly be doubtful. 236 *aetatem* thus used is common in Plautus and Terence, and occurs more than once in Lucilius: it appears to have been a conversational idiom like our 'an age': comp. too III 986 *Perpetuam aetatem.* 237 *pellens f. c.* is well illustrated by Pliny XIV 136 *Campaniae nobilissima* (i.e. vina) *exposita sub diu in cadis verberari sole luna imbre ventis aptissimum videtur*: to such a custom Lucr. seems to refer.

239—245: now to explain the origin and prodigious force of thunderbolts. 240 *discludere*: III 171 *Ossibus ac nervis disclusis intus.* 242 *monim. vir.*: Aen. VIII 311 *singula laetus Exquiritque auditque virum monimenta priorum*; 356 *Reliquias veterumque vides monimenta virorum. demol. atque crem.*: Livy XXVIII 19 12 *cremata et diruta urbe*; 20 7 *ignem deinde tectis iniciunt ac diruunt quae incendio absumi nequeunt*: to burn what will burn, and throw down what will not: VII 27 8 *oppidum dirutum atque incensum*; IX 45 17 *quorum pleraque diruta atque incensa*; Suet. Nero 38 *quaedam horrea...ut bellicis machinis labefacta atque inflammata sint, quod saxeo muro constructa sint*: the *atque* (*ac*) binding the two notions together in Lucr. Livy and Suet. alike to my mind adds probability to my *cremare.* [Comp. also Cic. epist. XV 4 10 *omnibus partibus urbis disturbatis aut incensis.*] 245 *neque* cet.: V 91 *ne te in promissis plura moremur.*

246—322: that thunderbolts are formed in dense masses of clouds our eyesight tells us; the wind gathers the seeds of fire in these clouds, and gets ignited by them and the heat from its own rapid motion, till it bursts forth with flashes and loud rattlings followed by heavy rain: sometimes a wind from without bursts a cloud charged with thunder; sometimes the wind gets fired on its journey, losing some of its own atoms and gathering from the air atoms of fire; sometimes the mere force of its blow strikes out fire, as cold steel strikes fire out of a stone; though the wind after such rapid motion can never be quite without warmth. 250 *Quod* introduces not the cause, but merely an illustration of the case in point, as III 208 *Haec quoque res etiam naturam dedicat eius,...Quod simul atque* cet.; see n. there: IV 211 *Quod simul ac primum sub diu splendor aquai Ponitur* cet.; V 285 *id licet hinc cognoscere possis, Quod simul ac primum nubes* cet.: VI 335 *Deinde, quod* cet. is also essentially similar. 251—254 = IV 170—173. 255 *commoliri tempestas fulmina* probably suggested to Virgil *Fulmina molitur* in the passage quoted to IV 172. 257 *Ut picis* cet.: 426 *tamquam demissa columna In mare de caelo*, and 433. 258 *trahit atram* cet.: Virg. geor. I 323 *Et foedam glomerant tempestatem imbribus atris Collectae ex alto nubes.* 259 *tempestatem* comprises all ingredients of the storm; *procellis* are furious winds: 124 *validi venti conlecta procella*; 293 *discidio nubis ventique procella*; Livy XXXIX 46 3 *tempestas cum magnis procellis coorta*; Sen. nat. quaest. V 12 2 *et erumpit in ventum qui fere procellosus est.* 266 *venientes* i.e. nubes, understood from 268 *nubibus* in the dependent clause: a favourite usage of Lucr.; see n. to I 15: with *venientes* comp. I 285 *venientis aquai*: the object of *opprimere* is *terras* of 264. 267 *cam. nat.*: see n. to V 488. 268 *extructis foret nubibus*: with this abl. comp. II 909 *Aut simili* i.e. sensu *totis animalibus esse putari*; III 620 *Atque ita multimodis partitis artubus esse*; Hor. sat. I 5 58 *tua cornu Ni foret exsecto frons.* 271 *supra*, i.e. 206 and 209. 276 *cŭm eo*: see n. to II 404. 278 *acuit*, poetically treating it as a bolt, βέλος, *telum. forn. intus*: see n. to IV 1091. 279 *sua cum Mobil.*: see n. to I 287. 285 *sonitus* cet.: 294 *ardenti sonitus cum provolat ictu*; comp. II 1100 *caelique serena Concutiat sonitu*, and n. there. 287 *tremor pertemptat*: Virg. geor. III 250 *Nonne vides ut tota tremor pertemptet equorum Corpora.* 290 *de*=ex: both after and in consequence of: V 651 *ubi de longo cursu sol ultima caeli Impulit*; Ovid met. X 49 *incessit passu de vulnere tardo*; trist. III 3 82 *Deque tuis lacrimis umida serta dato*; see too n. to I 384 *de concursu.* 291 *Omnis* cet.; Virg. geor. I 324 *ruit arduus aether*; Aen. V 695 *ruit aethere toto Turbidus imber aqua*; Martial III 100 3 *Imbribus immodicis caelum nam forte ruebat*; see also n. to I 250: just above, 268 *extructis foret alte nubibus aether. in im. v.*: Lucil. III 36 Muell. *Terra abit in nimbos imbremque.* 292 comp. V 255 *Pars etiam glebarum ad dilu-*

viem revocatur. 295 *Est cum*, ἔστιν ὅτε: his elder contemporary the auctor ad Heren. II 30 *est cum complexione supersedendum est...est cum exornatio praetermittenda est*; IV 36 *est cum non est satius, si* cet.; M. Aurel. to Fronto II 13 *eritne quom te videbo?*; Plaut. capt. 324 *Est etiam ubi...praestet*; Cic. Tusc. disp. V 23 *est ubi id isto modo valeat*; Hor. epist. II 1 63 *Interdum vulgus rectum videt, est ubi peccat*; [ibid. I 10 15 *Est ubi plus tepeant hiemes? ubi...Est ubi divellat somnos minus invida cura?*] 297 *igneus ille Vertex* appears to be forked lightning. 298 *quem*: see n. to III 94. 299 *quoc. tulit* i.e. se: comp. *si forte eo vestigia ferrent* of Livy and the like; [and Cic. epist. V 2 3 *meae enim rationes ita tulerunt.*] 301 *Igniscat*: the mss. of Cicero and Virgil write *ignesco.* 302 *Dum venit, amittens*, 304 *Atque..portat*: a change from the participle to the finite verb, an idiom so common in Greek: see also n. to V 383. 306 *plumbea* cet.: Ovid met. II 727 *cum Balearica plumbum Funda iacit. volat illud et incandescit eundo*; comp. too n. to 178 *plumbea* cet. 313 *ex illa quae tum res*: see n. to I 15. 316 *ad ictum*: comp. I 185 *Seminis ad coitum*, and n. there. 319 *tem. om. plane*: see n. to II 1060 *temere incassum frustraque.*

323—378: the thunderbolt derives its velocity from a union of causes: it acquires momentum within the cloud; as it bursts out of it, this is increased on the principle of missiles discharged from an engine; its atoms are extremely fine; add to this the natural tendency downward, which increases continuously; perhaps too it is aided by blows from atoms which it gathers to itself in the air: its subtle atoms pass through the pores of some things; burst asunder others; melt others. In autumn and spring thunder is most frequent, because then there is a mixture of heat and cold, of fire and wind, as well as moisture; all of which are needed to forge it. 324 *percurrunt*, i.e. usque ad finem currunt: this absolute use of the word which is rare enough, is most learnedly illustrated by Lach.: V 1407 *supera calamos unco percurrere labro*; but IV 588 *Unco saepe labro calamos percurrit*: VI 668 *Perque mare ac terras rapidus percurrere turbo*; Propert. III (II) 16 49 *Vidistis toto sonitus percurrere caelo*; Aetna 99 *Per tota errantes percurrunt corpora venae.* 326 *con. sumit*: 1041 *partem in vacuam conamina sumpsit.* 327 *inpetis* he uses only here, fond as he is of *impete*: observe 327 *inpetis*, 328 *impete*, 334 *impete*, 337 *impetus*, 340 *impete.* 333 *in remorando* has the force of a pres. partic., remoratur et haesitat: IV 720 *in remorando Laedere ne possint ex ulla lumina parte*; III 491 *in iactando membra fatigat*; 706 *in manando dissoluuntur*; VI 143 *Dant in frangendo*; Cic. pro Font. 39 (29) *in appellando significare*; [pro Mil. 79 *in confitendo ab iisne poenam timeret?*;] Ov. trist. III 14 (13) 9 *Inque relinquendo*, which ought not to be tampered with: auctor bell. Africae 63 4 *quae in repugnando erat commorata*; [Caes. b. civ. II 9 8 *in struendo reliquerunt.*] 335 *quod* does not assign the cause, but

merely states the fact, and is like in principle to the cases given in n. to 250, III 208. 339 *itiner*: see n. to V 653 *itere.* 341 *Mobilitatem* cet.: Aen. IV 175 *Mobilitate viget viresque adquirit eundo.* 344 *E regione*: IV 374 *e regione eadem nos usque secuta*: comp. also VI 742, 823, 833; and Cic. de fin. I 19 and de fato; where *ad lineam* and *rectis lineis* are given as synonymes for it; also Livy XXXVIII 5 2 *tria...admovit, unum e regione Aesculapii*; 7 7 *fossam...e regione eius operis...ducere instituunt*: it is merely an extension to a thing in motion of the common meaning, 'over against', 'directly opposite'. 345 *volventia*: comp. V 931 *per caelum solis volventia lustra*, and n. there. 347 *incendunt* is much more poetical than the old vulgate *intendunt*; Wak. and Lach. cite Virgil's *pudor incendit vires, Illam incendentem luctus*: comp. too Tac. ann. I 23 *incendebat haec fletu*; and Livy XXI 58 6 *cum eo magis accensa vis venti esset.* 350 *perfringit*, because it falls on all the joinings of the thing, and so breaks it up into its constituent atoms: *perfigit* clearly can have no such force. 351 *texta* is here the partic. agreeing with *corpora rerum* rather than the subst. which elsewhere he uses. 352 *Dissoluit*: see 230. 353 *Confervefacit* seems not to occur elsewhere. 357 *st. fulg. apta*: Enn. ann. 30 *Qui caelum versat stellis fulgentibus aptum*; 162 *Caelum suspexit stellis fulgentibus aptum*; 343 *nox processit stellis ardentibus apta*: the last phrase is twice used by Virgil. 358 *caeli domus*: see n. to II 1110. 359 comp. I 10 *simul ac species patefactast verna diei*; and Manil. II 182 *alter florentia tempora veris Sufficit.* 364 *fretus* expresses at once the strait joining two seas and the swell and surging common in such cross-seas: Varro de ling. Lat. VII 22 *dictum fretum a similitudine ferventis aquae, quod in fretum saepe concurrat aestus atque effervescat*: for the form see n. to I 720 *fretu.* 365 Lach. compares Manil. I 852 *Sunt autem cunctis permixti partibus ignes, Qui gravidas habitant fabricantes fulmina nubis.* 368 foll. comp. Chrysippus' similar definition of spring and autumn in Stob. ecl. I p. 261 262. 368 for the expression comp. Ov. her. XIV 22 *Ultima pars lucis primaque noctis erat.* 369 *quare*: therefore in the spring as there is this mixture of heat and cold, there must be going on the struggle which produces thunder. Lach. refines, nor is his refinement true: 'quaeritur' he says 'quare calor et frigus inter se pugnent: id enim non fit quia ver est, sed quia *Prima pars caloris est postrema rigoris*': the second *quia* is at least as untrue as the first: heat and cold fight because they are together; and therefore in the spring, as also in the autumn. 370 *turbare* is neut.: see n. to II 126. [373 *confligunt aestatibus*: 'der Dativ nur bei Lucr.' Draeger hist. synt. I p. 383.] 374 *Propterea freta* cet. refers to 364 *Nam fretus ipse anni* cet. *nominitanda*: this word five times used by Lucr. seems scarcely to be found elsewhere: [see corp. inscr. Lat. I 1011 *sum Aurelia nominitata.*]

379—422: such is the true explanation of thunder, not the follies taught in the Tuscan rolls: if the gods do hurl the bolts, why do they pass over the guilty and so often strike the innocent? why does Jupiter thunder only when the sky is clouded? why does he waste his bolts on the sea? why not tell us to beware, if he wishes us to escape? why thunder, if he wishes to take us unawares? how can he hurl at once in so many places? why destroy his own temples and statues? why so often strike the mountain-tops? 379 *Hoc*, 'what I have just said': Wak. prefers to take *hoc* as the abl. 'ut magis Lucretianum'; so that *est* will be for *licet*, a sense it never bears in Lucr. and the older writers: see notes 1 to v 533. 380 *Perspicere* and *videre* have, as so often in Lucr., the force of substantives: see 415 416 and n. to I 331: *Perspicere* cet. *est hoc, non...perquirere* cet. *ipsam*, in its reality. 381 *Tyrrhena* cet.: see Cicero and Pliny quoted in notes to 86 foll. and Sen. nat. quaest. II 32 *quid, quod futura portendunt* cet. *hoc inter nos et Tuscos quibus summa est fulgurum persequendorum scientia interest: nos putamus, quia nubes conlisae sunt, fulmina emitti. ipsi existimant nubes conlidi ut fulmina emittantur. nam cum omnia ad deum referant, in ea opinione sunt, tamquam non quia facta sunt significent, sed quia significatura sunt fiant*: Cic. de div. I 72 speaks of the *Etruscorum et haruspicini et fulgurales et rituales libri. retro volventem* 'shew that in his time the Etruscan books were still read in the original, from right to left, *retro*' Niebuhr hist. I p. 111 n. 341: I should have thought it simply meant unrolling, volumina evolventem, retroversum volventem; [comp. Sen. rhet. suas. VI at end *ut librum velitis usque ad umbilicum revolvere*:] though I confess to having no certainty on the matter. What does Val. Flaccus I 782 mean by *iam iam exorabile retro Carmen agens*? 'I will remark by the way that by *indicia mentis* Lucr. means to explain *indigitamenta*' ibid.: but I do not find that the Etruscan books, which are here in question, had anything to do with these *indigitamenta*; which appear on the contrary to have belonged to the purest form of the old Roman worship. 382 *Ind. mentis*: Ov. met. VII 620 *felicia mentis Signa tuae* i.e. Iovis. 383—385 = 87—89, which were copiously illustrated. 386 *de caelo*: see n. to II 51.

388 comp. Terence quoted to II 1100. 390 *quibus incautum scelus est* i.e. qui non caverunt scelus: Sall. hist. inc. 46 *repente incautos agros invasit*; Livy XXV 38 14 *quia quod neglexeris, incautum atque apertum habeas*; Tac. ann. I 50 *hostibus incautum* i.e. iter; Silius II 98 *rueretque inopina sub ictu Ante fera incauto, quam sibila poneret arcus. aversabile* seems to occur only here. 392 *perfixo*: see n. to II 360: with this and 395 *Turbine* cet. comp. Aen. I 44 *Illum expirantem transfixo pectore flammas Turbine corripuit. documen* seems to be in apposition with the preceding sentence: Socrates in the clouds 399 feels the same difficulty, Εἴπερ βάλλει τοὺς ἐπιόρκους, πῶς οὐχὶ Σίμων' ἐνέπρησεν

Οὐδὲ Κλεώνυμον οὐδὲ Θέωρον; καίτοι σφόδρα γ' εἴσ' ἐπίορκοι. 393 *sibi conscius in re* appears to be like Cic. ad Att. I 18 1 *mihi in privatis omnibus conscius*; [Prop. I 10 2 *vestris conscius in lacrimis*:] he is self-conscious in the thing, that is conscious that he has done it: Cic. ad Att. II 24 3 has *his de rebus conscium*; Sall. Cat. 35 2 *conscientia de culpa*. 395 comp. V 1231 *violento turbine saepe Correptus*. 390—396 are expressed more briefly II 1102 foll. 396 *Cur etiam loca sola* cet., 404 *In mare qua* cet., 421 *Altaque cur plerumque* cet.: Cic. de div. II 44 is so like in expression that he would seem to have had Lucretius' lines in his memory: *scilicet si ista Iuppiter significaret, tam multa frustra fulmina emitteret! quid enim proficit, cum in medium mare fulmen iecit? quid, cum in altissimos montis, quod plerumque fit? quid, cum in desertas solitudines?* 397 *consuescunt*: see n. to IV 1282 *insuescat te*. 402 *simul ac nub. succ.*: V 286 *simul ac nubes primum succedere soli Coepere*. 403 [*prope*: Mart. I 49 29 *veniet tibi Conviva clamatus prope*.] *determinet*, mark the point to which they are to go. 404 *quid* may be called the cognate accus.: this use of the neut. pron. is of very extended application in Latin: N. P. Howard compares Plaut. trin. 96 *Si id me non accusas*; Amph. 859 *sic me insimulare falso facinus tam malum*. 405 *cam. nat.*: see n. to V 488. 410 *concit*: see n. to I 212 *cimus*. 411 comp. Cic. l. l. *esset mirabile quomodo id Iuppiter totiens iaceret, cum unum haberet; nec vero fulminibus homines quid aut faciendum esset aut cavendum moneret*. 413, 416 *uno sub tem.*=eodem tempore: comp. Ov. fasti V 491 *haec tria sunt sub eodem tempore festa*; met. I 494 *iam sub luce*; 603 *Sub nitido die*; Aetna 190 *sub exiguo tempore*; Manil. III 249 *vario sub tempore*; 245 *luce sub omni*; 671 *sub utroque tempore*; V 635 *sub tali tempore*; [Livy XXV 24 7 *sub luce Hexapylo effracto*:] see n. to IV 545 *sub murmure*, where the use of *sub* is essentially the same. 415 *pluere*, 416 *fieri* are used as subst.: see 380, V 979 *Non erat ut fieri posset mirarier*; and n. to I 331: just above he has *factum*, *Ut fierent*, the usual constr.: notice the indifference with which he repeats *fieri*, *fieri*; *factum fierent*: 727 he has *fit uti fiat*, 729 *fit uti fiant*; IV 448 *fit uti videantur...fieri*; Cic. orator 202 *ita fit ut.....fiat*; Livy is not averse to *ut fierent factum est* and the like; Ov. ex Ponto III 137 *di faciant, copia fiat*; 6 15 *facis ut fiat*. 417 foll.: II 1101 more briefly *fulmina mittat et aedis Saepe suas disturbet*; Socrates l. l. Ἀλλὰ τὸν αὑτοῦ γε νεὼν βάλλει καὶ Σούνιον ἄκρον Ἀθηνῶν; Cic. l. l. 45 and I 19 quotes his own verses, *Nam pater altitonans stellanti nixus Olympo Ipse suos quondam tumulos ac templa petivit Et Capitolinis iniecit sedibus ignis. Tum species ex aere vetus...Et divom simulacra peremit fulminis ardor*. 421 *eius* is the gen. after, not agreeing with *ignis*.

423—450: presters are thus formed: if the wind cannot break the cloud, it forces it down in the shape of a column to the sea, where it

bursts and causes a furious boiling and surging: sometimes the whirlwind will gather up atoms of cloud and wrap them round, and will so imitate a real prester: this will shew itself sometimes on land, but oftener on the sea.—Epic. in Diog. x 104 explains these *presteres*: Pliny II 131—134 will throw more light on Lucr. [429 *deprensa*: Catull. 25 13 *Deprensa navis in mari*, and Aeneid quoted there by Ellis; Hor. od. II 16 1 *in patenti Prensus Aegeo.*] 430 *Navigia* cet.: Pliny l. l. 132 *praecipua navigantium pestis, non antemnas modo verum ipsa navigia contorta frangens*; Sen. nat. quaest. v 13 3 *totae naves in sublime tollantur.* 431 *Hoc fit* cet.: the wind having become fiery by its rapid motion in the cloud cannot burst it; if it could, it would then be *fulmen*, as explained above so fully; but not being able to break the cloud, it pushes it down to the sea in the way described: Lucr. seems to assume that the word πρηστήρ will indicate its fiery nature without further specification. With this, and what follows, 438 *Versabundus enim turbo* cet., 443 *venti—Vertex*, 447 *Turbinis—procellae* comp. Pliny l. l. 133 *quod si maiore depressae nubis eruperit specu, sed minus lato quam procella nec sine fragore, turbinem vocant proxima quaeque prosternentem; idem ardentior accensusque dum furit, prester vocatur amburens contacta pariter et proterens...quod si simul rupit nubem exarsitque et ignem habuit, non postea concepit, fulmen est. distat a prestere quo flamma ab igni; hic late funditur flatu, illud conglobatur impetu. vertex autem remeando distat a turbine et quo stridor a fragore; procella latitudine ab utroque, disiecta nube verius quam rupta*: Seneca l. l. *hic ventus circumactus et eundem ambiens locum ac se ipsa vertigine concitans turbo est. qui si pugnacior est ac diutius volutatur, inflammatur et efficit quod prestera Graeci vocant: hic est igneus turbo.* 432 *coepit*: see n. to I 55 *incipiam*, and comp. *coeptum.* 438 *Versabundus*: 582 *Versabundaque portatur.* 439 *cum*: see n. to I 755. 440 *simul ac gravidam*, the only instance in Lucr. of *ac* before a guttural: for the reason of this exception see n. to I 281. 443 *involvat* cet. i.e. does not get enclosed in the dense clouds, but eddying about catches up stray particles of cloud and makes a case for itself. 446 *Hic* refers to *prestera* of 445; though it may include the imitation, as well as the genuine *prester*. 447 *Turbinis* and *procellae* as well as *vertex* are discriminated by Pliny cited above: *turbinis* then will denote the tornado in the neighbourhood of the place where the *prester* bursts; *procellae* the storm of wind spreading itself far and near. *provomit* appears not to occur elsewhere. 450 *Prosp. maris in magno* i.e. in mari quod late prospectum praebet: Ovid her. x 27 *atque ita late Aequora prospectu metior alta meo*; Sen. epist. 89 21 *in vastum terrarum marisque prospectum.*

451—494: clouds are thus formed: first many particles in the sky get entangled and form small clouds; and then these unite, until the sky is overcast: thus high mountains are seen to smoke with mist,

because the small particles of cloud are first carried to these by the wind: then moisture steams up from the sea and rivers; and the pressure of the ether above condenses it; finally many atoms, flying as I have shewn through space, come into this heaven of ours, and increase the mass from all sides.—Epic. in Diog. x 99 gives a brief explanation of clouds, agreeing essentially with this of Lucr. 453 *moris*, properly whatever holds or detains, and thence it has the force of *nexus*: Lach. compares 531 *mora quae fluvios passim refrenat euntis*; Aen. x 485 *Loricaeque moras*; and refers to Gronovius Sen. de benef. v 12 2 *commissuras eorum et moras*: in addition to his and Gronovius' instances comp. Plaut. Stichus 309 *fores facite ut pateant: removete moram*; Aen. xii 541 *clipei mora*; Sen. Thyest. 762 *lacertorum moras*; Phoen. 246 *Uterique nondum solveram clausi moras*; Lucan vi 217 *moras ferri . . rumpit*; Stat. Theb. xi 244 *portarum moras.* 456 *haec* is fem. plur. as it appears to be iii 585; but see n. there: *hae* does not occur in Lucr., and in his time *haec* must have been the usual form, and is sometimes preserved in the best mss. of Cicero Caesar Varro Virgil Livy and Ovid as well as Plautus Terence and others. *comprendunt inter se*=mutuo se comprendunt: comp. i 787 *inter se mutare*, and n. there. 458 *temp. saeva co.*: Virg. geor. iii 478 *miseranda coorta est Tempestas*, with quite another sense. 460 *Quam quoque magis*: comp. iii 700 *Tanto quique magis*, and n. there. 465 *coorta* in neut. plur. here as in iv 530, and I now think in vi 253: iii 15 *divina mente coortă*, the constr. is the same: vi 511 *coacta* seems the abl. sing. 474 *quoque* clearly belongs in strictness to *multa* or *e salso momine*; see n. to v 192. 475 *um. ol.*: the clouds and the sea. 482 comp. v 466 *Corpore concreto subtexunt nubila caelum.* 483 *huc*, into the heaven of our *mundus* from some other part of space. 485 *numerum*, of *corpora* or atoms. *inn. num.*: ii 1054 *Seminaque innumero numero summaque profunda Multimodis volitent*; where see note: but here *summam profundi* refers to infinite space; as *spatium profundi* more than once. 486 *docui*, the former point i 1008—1051; the latter 988—1007. 487 *ostendi*, ii 142 foll. 488 comp. iv 192 *Inmemorabile per spatium transcurrere posse.* 490 *Mont. tam mag.*: comp. 189 *montibus adsimulata Nubila*; and iv 140 *magni montes* cet.: 491 *inpensa*=quae inpendent: see n. to ii 363.

495—526: rain comes in this way: many particles of matter rise with the clouds from all things; then the clouds suck up much moisture from the sea and rivers; thus the clouds both by their own weight and the pressure of the wind emit rains; and these are increased by the sun helping to dissolve the clouds: rains are heavy and lasting, when these causes combine, and the reeking earth sends its moisture back: the rainbow comes from the sun shining right upon a mass of cloud. 496 *ut imber*: 1099 *Aut extrinsecus ut nubes nebulaeque* cet. 499 *utrumque*

Et nubis et aquam, like the ἀμφότερον of Homer and the Greeks: Plaut. cistell. I 3 1 *Utrumque haec et multiloqua et multibiba est anus*; Gratius cyneg. 333 *Utrumque et prudens et sumptis impiger armis*: sometimes *utrumque* is put at the end; as Plaut. trin. 461 *Nam et stulte facere et stulte fabularier Utrumque, Lesbonice, in aetate haud bonumst*; Lucil. XI *Et formosus homo fuit et famosus utrumque*; dirae 96 *Sive eris, et si non, mecum morieris utrumque*: comp. too III 658 and my note there. **503** *Concipiunt* i.e. nubila, understood from the accus. *nubila* of 505: see n. to I 15. **507** *bene* cet. i.e. bene multa semina. **511** *coacta* appears to be the ablative. **512** *de supero*: comp. *de subito* and the like: it is the older and correcter form of *desuper*. **513** *rarescunt* cet.: 214 *Fulgit item, cum rarescunt quoque nubila caeli; Nam cum ventus eas leviter diducit euntis Dissoluitque* cet. **514** *super* = insuper: see n. to I 649. **517** *utraque*, as in IV 86 and 291. **518** *vi cumulata* = 511 *Copia nimborum turba maiore coacta*: with the expression comp. 734 *nubes coguntur vique premuntur.* **519** *tenere*: Lach. compares Livy XXIII 44 6 *imber continens per noctem totam usque ad horam tertiam diei insequentis tenuit*; and refers to Duker on IV 7 7 and VI 35 10 who quotes several other examples of the same use, II 3, III 19, XXIV 47, XXV 39, XXXIII 22, XXXVI 43: add VII 39 11, XXV 15 16, 27 6 *qui* (i.e. venti) *tum tenebant*, XXVII 5 15, XXXIX 22 3, XL 8 20; Ov. ars I 445. **521** *aliis aliae...Insuper*: comp. 191 *cumulata videbis Insuper esse aliis alia*; and n. there. **523** *redhalat* seems not to occur elsewhere: for form comp. *redhibeo*: *rehalo* of old eds. is a barbarism. **525** *Adversa asp.* = aspargine nimb. ex adverso. *aspargine*: comp. I 719 *aspargit*, and n. there. **526** *arqui*: the best mss. of Cic. de nat. III 51 have the same form; and Nonius cites from Varro the nom. plur. *arci*: see Neue I p. 543.

527—534: all other like things, whether existing by themselves or formed in the clouds, snow wind hail and frost, may be all easily explained, if you understand the properties of atoms. **527** *sorsum crescunt* is intended to be a verbal as well as real antithesis to *concrescunt.* **530** *geli*: see n. to V 205. *mag. dur. aq.* and **531** *Et mora* cet. are different expressions for the same thing and are both explanations of the *vis geli*; the iteration is designed to be emphatic: Virg. geor. IV 136 *glacie cursus frenaret aquarum.* **531** *mora*: see n. to 453. **532** *tamen*: notwithstanding their number and variety, they may yet be all readily explained. **533** *quareve* = quareque: see n. to I 57.

535—556: earthquakes have more than one cause: underground are caverns rocks rivers and lakes: well, when any of these caverns tumble in, whole mountains may fall and shake the earth; or if a mass of earth tumble into the large pools of water, the oscillation of the water may make the earth reel.—Epic. in Diog. X 105 106 attributes earthquakes to somewhat similar combinations of causes, and adds in his usual way

καὶ κατ' ἄλλους δὲ τρόπους πλείους τὰς κινήσεις ταύτας τῆς γῆς γίνεσθαι: Seneca devotes the whole of the sixth book of his nat. quaest. to the same subject; chap. 20 recounts first the theories of Democritus, and then of Epicurus: Seneca here and in what precedes and follows illustrates Lucr. better than Epicurus does, having had access of course to larger works of the latter: *veniamus nunc ad eos qui omnia ista quae rettuli in causa esse dixerunt aut ex his plura. Democritus plura putat. ait enim motum aliquando spiritu fieri, aliquando aqua, aliquando utroque*, just as Lucr.; then 20 5 *omnes istas posse esse causas Epicurus ait pluresque alias temptat et alios qui aliquid unum ex istis esse adfirmaverunt corripit* cet.; he then proceeds to employ wind and water in much the same way as Lucr. does. 538 and 552 *lucunas*: see n. to III 1031. 538 *lucunas*, to distinguish it from *lacus*, may mean here chasms not filled with water, a sense it often bears, though 552 he says *in magnas aqüae vastasque lucunas*; which would also shew that *lucunas* cannot well mean small pools in contradistinction to *lacus*; so that in fact it may be a mere poetical tautology, as 539 *rupes deruptaque saxa*: comp. I 115 *vastasque lacunas* and n. there. 542 *similem* cet.: this appears to follow from Epicurus' *ἰσονομία* or as Cicero de nat. I 50 translates it *aequabilis tributio; ut omnibus omnia paribus paria respondeant*. 543 *subi. supp.* must surely have their literal sense, referring to what he has just said is below ground. Creech plainly and Lamb. apparently take the meaning to be, 'these points being assumed and taken for granted': the latter says *τούτων δὴ ὑποκειμένων καὶ ὑποτεθέντων*: but I find no authority whatever for giving the Latin words the metaphorical meaning which these Greek words have, and Lamb. may have used them too in their literal sense. 544 *superne tremit* cet.: so Epic. according to Seneca l. l. *fortasse aliqua pars terrae velut columnis quibusdam ac pilis sustinetur, quibus vitiatis ac recedentibus tremit pondus impositum*. 547 *disserpunt* I find only here. 549 *non magno pondere* and *tota* gain point and force by being placed together and divided from *plaustri* and *Tecta* respectively; but yet the wide separation of *plaustri* and *non magno pondere* is harsh: but see n. to IV 905 *pondere magno*. Sen. epist. 90 9 *longo vehiculorum ordine vicis intrementibus*. 550 *exultant ut scrupus* is assuredly near the ductus litterarum of *exultantes dupuis*, *ut* being passed over after *nt*: *ut*, 'where', is used before him by Lucil. VIII 18 Muell. *flumen uti adque ipso divortio* [*aquae sunt*]; by his contemporary Catullus, 11 3 and 17 10; by Virgil Aen. V 329 *ut forte*; Cic. Verr. V 30 *in ipso aditu atque ore portus, ut* (mss. *ubi* editions) *primum ex alto sinus ab litore ad urbem inflectitur*: Haupt ind. lect. 61 62 p. 6 shews that Ov. met. I 15 probably wrote *Utque aer, tellus* cet., as Cicero certainly translates Aratus 230 *ἧχί περ ἄκραι χηλαὶ κ.τ.λ.*, by *ut prius illae Chelae*, and Germanicus by *Ut Chelae, candens ut balteus Orionis*: [comp. too Plaut. Amph. 1083 *Ut iacui*

exurgo: and perhaps 237 *Quisque, ut steterat, iacet optinetque ordinem*; for see ibid. 1079 *Ubi quisque institerat, concidit crepitu.*] Lucr. may well then have written *ut cumque* for *ubicumque*, as does Mela I 86 *utcumque* (so all mss. and Parthey rightly) *Ioniam vocant.* *scrupus viai* would be a rough loose stone on the public way: with this and what precedes and follows comp. Sen. l. l. 22 1 *prius ergo de motu quatiente dicamus. si quando magna onera per vices vehiculorum plurium tracta sunt et rotae maiore nisu in salebras inciderunt, terram concuti senties* cet.; 23 *huius motus succutientis terras haec erit causa*; [Pliny paneg. 51 *non..immanium transvectione saxorum urbis tecta quatiuntur.*] 551 Virg. geor. III 361 has *ferratos sustinet orbes*, just following an imitation of Lucr. *succutit*: Ovid met. II 166 *Succutiturque alte similisque est currus inani.* 552 *aqüae*: so 868 *aqüae*, 1072 *aqüai*: 'similiter Horatius, isque unus inter omnes, *siluae* tribus syllabis dixit' Lach.: but there is a difference there in quantity, and *silüae* more resembles the *solüo dissolüo* which so often in Lucr. alternate with *solvo dissolvo*: he also compares *larüa larva*, *milüus milvus*: his examples of *aqüa* from Plautus and others are very uncertain; neither Ritschl nor Fleckeisen I see recognises the one from the mil. glor.: Ritschl I now see in his opusc. II p. 600 denies this form to Plautus, and questions it in Lucr.: it is true that in 868 *laticis* may come from Lucr. and *aquae* be the gloss; but yet the 3 passages seem to me to lend each other great mutual support. [See too Bergk in Philologus vol. 33 p. 277.] 554 *aquae fluctu quoque*, as well as the other causes given above: but this second *quoque* is not wanted.

557—576: again when the wind underground presses on these caverns, the earth above leans in the same direction, so as to bring things within an ace of destruction; a presage of the earth's total ruin, which must come one day.—With this and the next paragraph comp. Seneca l. l. 20 7 *nullam tamen illi* (i.e. Epicuro) *placet causam motus esse maiorem quam spiritum. nobis quoque placet hunc spiritum esse qui possit tanta conari.* 561 *extr. dom.*: see n. to 1283 *aliena rogorum extructa.* 562 i.e. quantoque magis cet., tam magis inclinata cet. 563 *tument*, as a wall does on the side towards which it leans: Pliny II 163 *in poculis repletis media maxime tument.* *prodita* = proiecta, or procumbentia: 606 it has the same meaning, but is there more emphatic. 565 *Et metuunt* = et dubitant: Catull. 64 146 *Nil metuunt iurare, nihil promittere parcunt*; Juv. v 5 *Quamvis iurato metuam tibi credere testi*; [Plaut. Amph. 112 *Non metuo quin* cet.:] comp. Virg. geor. II 433 *Et dubitant homines serere atque impendere curam?*; Aen. VI 806 *Et dubitamus adhuc virtute extendere vires!*; [Sen. rhet. controv. I praefat. 23 *et putant illum homines hac virtute caruisse!*] 568 *respirent*, 570 *respirant*: Cic. pro Quinct. 53 *respirasset cupiditas atque avaritia paulum*; Phil. VIII 20 *ne punctum quidem temporis.. oppugnatio respiravit*;

Annaeus Florus ap. Jahn praef. ad Flor. p. XLIII *hic cum ego respirassem, statim Baeticus*: Lucr. picturesquely unites the literal and metaphorical meanings of the word. *vis nulla* cet.: I 850 *neque ab exitio res ulla refrenat.* 569 *reprehendere*: III 583 *Extremum cupiunt vitae reprehendere vinclum*: a common sense, as Cic. acad. pr. II 139 *revocat virtus vel potius reprendit manu*; Livy XXXIV 14 8 *adeo turbati erant dextrae alae pedites equitesque, ut quosdam consul manu ipse reprenderit et aversos in hostem verterit.* 570 *Nunc*: see n. to I 169. 571 all the terms are military. 573 *facit*: I 740 *fecere ruinas*: it is the same as *dat ruinas*. *recellit* = reclinat: Festus p. 274 '*recellere* reclinare, et *excellere* in altum extollere'; Marullus in marg. cod. Victor. '*recello* sicut *excello* et *antecello*': Livy XXIV 34 10 thus uses the word. 574 *prolapsa* answers to *inclinatur*, *recipit sedes in pondere* to *retro recellit*: falling forward out of its place is the natural force of *prolapsa*: see Forc. and comp. 1006 *primordia ferri In vacuum prolapsa cadunt coniuncta*: *recipit sedes in pondere* then is a proper expression, not *prolapsa in pondera*: a thing *prolabitur trans pondera*, tumbles beyond its balance or centre of gravity; thus Livy has *rem prope prolapsam restituit*; *prolapsam eam erexisse*; *prolapsum imperium retentum ac recuperatum esse*, and the like. Lach. illustrates this sense of the plur. *pondera*: but when he adds 'sed *pondus* singulari numero ita dici non posse Turnebus [advers. IV 17] recte observavit', he and Turnebus are both greatly mistaken: Ovid met. I 12 writes *Nec circumfuso pendebat in aere tellus Ponderibus librata suis*, and Lucan I 57 *Sentiet axis onus; librati pondera caeli Orbe tene medio*; but then with precisely the same force Manil. I 173 has *Quodni librato penderet pondere tellus*, Petron. sat. 124 v. 264 *Sentit terra deos mutataque sidera pondus Quaesivere suum*: Hor. epist. I 6 51 says *cogat trans pondera dextram Porrigere*; but then with just the same meaning Petron. 136 *fracta est putris sella, quae staturae altitudinem adiecerat, anumque pondere suo deiectam super foculum mittit*; Pliny paneg. 26 *ut desectum corpore caput nutaturumque instabili pondere*; Sen. Thyest. 697 *Nutavit aula dubia quo pondus daret*; Stat. Theb. V 374 *instabili procumbens pondere*; XII 435 *ipsae etiam commoto pondere paulum Secessere trabes*; Aetna 324 and 346: for the plur. comp. Sen. Hipp. 973; Stat. Theb. III 37: reason and ms. authority then are both for *pondere*; as *pondus* and *suas sedes* are almost synon.: recipit suas sedes vel pondus, et manet in suis sedibus vel pondere. In fact Lucr. thus uses the sing. only: see my note to II 218. 576 *perhilum* seems a ἅπαξ λεγόμ.

577—607: again when wind and air enter from without or rise up from the ground into these caverns, after eddying about they sometimes cleave the crust of earth and swallow up whole towns; or, if they do not break through, yet they cause the earth to quake, and excite in men a feeling that the world will one day perish.—Epicurus in Seneca l. l. seems

briefly to refer to the same cause: *potest terram commovere impressio spiritus: fortasse enim aer alio intrante aere agitatur.* 577 *haec eiusdem quoque*: *quoque* seems manifestly to belong to *haec*; haec quoque causa est eiusdem cet.; see n. to v 192: he appears not to avoid allowing one or more words to come between *quoque* and the word to which it belongs; see also n. to IV 532. 579 *ipsa*: see n. to IV 736. 584 *concinnat hiatum*: he has also *concinnat fervorem, amorem, id.* 585 *In Syria Sidone* probably refers to the earthquake which Strabo p. 58 recounts on the authority of Posidonius, καταποθῆναι πόλιν ἱδρυμένην ὑπὲρ Σιδῶνος, καὶ αὐτῆς δὲ Σιδῶνος σχεδὸν τὰ δύο μέρη πεσεῖν...τὸ δ' αὐτὸ πάθος καὶ ἐπὶ τὴν Συρίαν ὅλην διέτεινε. *Aegi*: he refers to the famous earthquake of B.C. 372 which swallowed up Helice and Bura and ten Lacedaemonian triremes moored off the coast: Ovid met. XV 293 *Si quaeras Helicen et Burin, Achaidas urbes, Invenies sub aquis*: it is mentioned by many Greek and Latin writers, by Seneca l. l. more than once, as 23 4 *Callisthenes in libris quibus describit quemadmodum Helice Burisque mersae sunt, quis illas casus in mare vel in illas mare immersit, dicit id quod in priore parte dictum est, 'spiritus intrat terram per occulta foramina* cet.': Lucr. mentions Aegium no doubt because it was in his time the chief town of Achaia and is near the two in question; Sen. l. l. 25 4 *illa vasta concussio quae duas compressit urbes Helicen et Burin, circa Aegium constitit*: Lucr. probably had read Callisthenes. 587 *Disturbāt*: see n. to I 70 *Inritat.* 591 *nisi* = si non: see n. to I 1012 *nisi terminet.* 595 *tremere atque movere*: 1190 *nervi trahere et tremere artus*; where Lach. attempts to define when you may or may not use *trahere* or *movere* for *trahi* or *moveri*: if a man's limbs are moved by himself or by a sensible external cause, you must use the passive *membra moventur*; if no cause be apparent, then you may say *membra movent*; and thus *terra movet*, because it has no power of moving itself nor do you perceive why it moves: on this principle he will not in III 571 tolerate the *movere* of mss. but reads *moveri* with Lamb.: the same reasoning applies to *trahere* for *trahi*: how far does this rule suit I 397 *Ipse in se trahere*? of course in all cases the passive *may* be used. 601 *Proinde licet quamvis*, 603 *Et tamen*: 620 *Proinde licet quamvis* cet. *tamen*; Cic. de nat. III 88 *quamvis licet menti delubra et virtuti et fidei consecremus; tamen* cet.; Tusc. IV 53 *quamvis licet insectemur istos*; where Bentl. 'bene quidem, quod lectionem hanc *quamvis licet* in textum recepisti. sed dum utramque particulam eiusdem potestatis esse credis, erras cum aliis quibusdam viris doctissimis. *quamvis* enim hic valet *quantumvis*, non *quamquam*': 'they may as much as they please' is the force of the words. 602 *aet. mand. sal.*: II 570 *neque in aeternum sepelire salutem.* 604 *Subdit* cet.: Sen. Agam. 133 *Mixtus dolori subdidit stimulos timor. qu. de parte*: 820 *Ut spatium caeli quadam de parte venenet.* 605 comp. I 1106 *Terraque se pedibus raptim subducat.* 606 *rerumque*

cet.: I 1104 *Et ne cetera consimili ratione sequantur*, 1107 *Inter permixtas rerum caelique ruinas*: *rerum summa* here = haec rerum summa, or mundus, as the context shews: see n. to I 1008.—He loses no occasion of reminding us how great the delusion of many is in supposing that our world is eternal: this he has refuted at great length in the early part of V: our *mundus* and every other *mundus* will perish as certainly as the universe, the *summarum summa*, will be immortal and unchangeable for everlasting.

608—638: the sea does not grow larger, because its size is enormous compared with the supplies from rivers and springs and rains; the sun and winds too and clouds all draw off much, as they act upon so wide a surface; then as water comes through the porous earth into the sea it passes in like manner from the sea back to the earth.—Manifestly, as Lach. shews, this paragraph has no connexion in language and not much in meaning with what precedes and follows, and must be a later addition of the poet's, not properly embodied with the rest. 612 *rigant* in sense can only apply to *terras*. 613 *ad* cet.: comp. 679 *Nil sint ad summam*; and n. there: Cic. Tusc. I 40 *terram...ad universi caeli complexum quasi puncti instar optinere*. 614 *adaugmen*: another ἅπαξ λεγόμ.: see n. to I 435 *Augmine*. 615 *magnum* seems intended by its position to be emphatic, utpote magnum: then *magnam* immediately follows with his usual indifference to such repetitions. 619 *pelage*: V 35 *pelageque sonora*. 626 comp. Virg. geor. III 360 *Concrescunt subitae currenti in flumine crustae*, with a quite different application; as so often in his imitations. *luti concr. crust.*: Frontin. de aquis 122 *aut enim limo concrescente qui interdum in crustam indurescit* cet. 627 *docui*, 473 foll. and 503 foll. 630 *Cum* cet.: Aen. X 807 *Dum pluit in terris*; where Servius 'si iunxeris *Dum pluit in terris*, erit archaismos, debuit enim dicere *in terras*. tamen sciendum hemistichium hoc Lucretii esse cet.': it is better with Lach. to look upon *in terris* as a pleonasm natural in an old writer. 631 *cum*: see n. to I 755. 632 *coniunctast*, i.e. cum mari. 635—638 = V 269—272, except that for 637 *Confluit*, *redit* V 271 has *Convenit*, *fluit*: the reason of the change to *redit* is obvious.

639—646: now to explain the eruptions of Aetna, one of which struck neighbouring nations with such fear and awe. 639 *fauces*: 702 he says that *fauces* and *ora* are the proper Latin terms for craters. 642 *dominata*: *dominantur*, *dominatus*, *dominantior* he has already applied in this book to the power of lightning. 643 *gentibus*: for the dat. see n. to 729. 646 *moliretur*: Cic. de nat. II 59 *nec ea quae agunt molientium* (i.e. deorum) *cum labore operoso ac molesto*. Cicero l. l. 96 thus describes an eruption, *nos autem tenebras cogitemus tantas quantae quondam eruptione Aetnaeorum ignium finitimas regiones obscuravisse dicuntur, ut per biduum nemo hominem homo agnosceret* cet.:

what the eruption is or whether it is the same to which the two refer, I do not know.

647—679: to understand such eruptions, reflect that our world is a smaller fraction of the universe than a man is of the whole world: now we are not surprised when a man is seized with any one of numerous diseases, the seeds of which our world supplies; why then wonder that out of the universe should rise up the seeds of these or any other great natural convulsions? if you say the conflagration is here too great to comprehend, I reply that its rarity only makes it so appear; as we are creatures of habit, and wonder at what is strange and cease to wonder at what is common. 649 *summam rerum* has here its proper force: see n. to I 1008. *profundam*: see n. to IV 63. 651 *multesima pars* is quoted by Nonius p. 136, as 'nove posita': Lucr. has formed it on the analogy of *millesimus*, with the sense of πολλοστός. 652 *tota pars*, *quota* is found in Manil. III 420: *tŏtus* is a very rare word having the same relation to *quotus*, that *totiens* has to *quotiens*. 653 *contueare* means perhaps the act of examining, and *videas* the seeing and understanding which thence results; otherwise the phrase would be very tautological. 660 comp. 1167 *ut est per membra sacer dum diditur ignis*; Celsus V 28 4 *sacer quoque ignis malis ulceribus adnumerari debet*; he proceeds to describe at length two kinds: above, 28 31 and 33, he had described what ἐρυσίπελας *Graeci nominant*; so that if the latter correspond to our erysipelas, the *sacer ignis* must be different: Celsus by *sacer ignis* appears to understand one kind of the ἕρπης of the Greek physicians; others certainly make it to be erysipelas, as Isidore orig. IV 8 4 *erysipelas est quem Latini* sacrum ignem *appellant, id est execrandum per antiphrasim.* 665 *Sic igitur* cet.: as this world is sufficient to supply endless disorders to man, so can the whole universe furnish the materials for endless disorders to our world, such as earthquakes, volcanic eruptions and the like. 666 *Ex inf.* cet.: I 996 *suppeditantur Ex infinito cita corpora materiai*; 1035 *nisi materiai Ex infinito suboriri copia posset.* 669 *Ig. ab. Aetn.*: Sen. nat. quaest. II 30 *Aetna aliquando multo igne abundavit. flammescere* is found in no other writer of authority. *flam. cael.*: Aen. III 574 *Attollitque globos flammarum et sidera lambit*: but *flammescere caelum* and *ardescunt caelestia templa* strike me as somewhat frigid hyperboles in what is intended for a philosophical description, as no one could take the flaming heaven to be anything more than a mere ocular deception; unless indeed Lucr. refer to something like what Seneca l. l. records of the eruption of Aetna: *illo tempore aiunt tunc plurima fuisse tonitrua et fulmina quae concursu aridorum corporum facta sunt, non nubium quas verisimile est in tanto fervore aeris nullas fuisse.* The 'caelum ardere visum' was common among the ancient prodigies and may have inspired a traditional terror. 671 *coortu*: this word, which occurs II 1106, is also Lucretian. 672

tetulerunt: this form is common enough in the older writers. 678 *omnia* cet.: not only this fire of Aetna, but all things in the world together with the world itself are as nothing compared with the universe; and should therefore excite no wonder. 679 *Nil sint ad*: comp. 613; and Cic. de orat. II 25 *quem cognovimus virum bonum et non illitteratum, sed nihil ad Persium*; pro Deiot. 24 *credo, Caesar, nihil ad tuum equitatum*; Ter. eun. 361 *at nihil ad nostram hanc*; Cic. de fin. II 85 *quid ad utilitatem?*; Plato Hipp. ma. 281 D φαύλους πρὸς ἡμᾶς: 'to' is often so used in old English: 'war is no strife To the dark house and the detested wife'. [Comp. also Eurip. frag. 96 'Αλλ' οὐδὲν ηὐγένεια πρὸς τὰ χρήματα; Plaut. trin. 723 *Credo ad summos bellatores acrem—fugitorem fore*; Bacon (Spedding vol. 7 p. 230) *for what are the sands of the sea to the sea, earth, heavens! and all these are nothing to thy mercies.* See Draeger hist. synt. I p. 539 c.]

680—702: Aetna emits its flames in this way: caverns of rock run under it, full of wind which heats first itself and then the rocks and earth with which it comes in contact, and then bursts out with flame ashes smoke and huge stones: again caverns reach from the sea to the mountain; through these pass from the sea water and wind mixed; this wind and water force up flame and rocks and clouds of sand. 680 *tamen*, after this digression or preface. 681 *Aet. forn.*: Virg. geor. I 472 *undantem ruptis fornacibus Aetnam.* 683 *fere*: see n. to I 14 *ferae* (fere). 689 *rectis*: see n. to II 217. 690 foll.: geor. I 471 foll. and still more Aen. III 571—577 shew many traces of imitation. 697 *hac ire* cet.: Justin IV 1 will throw much light on the meaning here and shew the nature of the hiatus: *est autem terra ipsa* (i.e. Siciliae) *tenuis ac fragilis et cavernis quibusdam fistulisque ita penetrabilis ut ventorum tota ferme flatibus pateat; nec non et ignibus generandis nutriendisque soli ipsius naturalis materia, quippe intrinsecus stratum sulpure et bitumine traditur: quae res facit ut spiritu cum igne in materia luctante frequenter et compluribus locis nunc flammas, nunc vaporem, nunc fumum eructet. inde denique Aetnae montis per tot saecula durat incendium, et ubi acrior per spiramenta cavernarum ventus incubuit, harenarum moles egeruntur...eadem causa etiam Aetnae montis perpetuos ignes facit. nam aquarum ille concursus raptum secum spiritum in imum fundum trahit atque ibi suffocatum tam diu tenet, donec per spiramenta terrae diffusus nutrimenta ignis incendat.* 698 *penetrare penitus*, a favourite assonance: I 529 *penitus penetrata retexi*; II 539 *Ut penitus nequeat penetrari*: Lachmann's remark 'hoc enim (i.e. *penitus*) ad *penetrare* pertinere non est veri simile' strikes me as very strange; as well as the union of confidence and ill-success with which he treats the whole passage. 700 *arenae*: comp. Justin and Seneca quoted above. Lucr. shews here his habitual accuracy of observation and vividness of description: all the principal features of an eruption are brought into clear relief. Virg. geor. III 241

nigramque alte subiectat harenam with a quite different application. 701 *crateres* gives a lively picture of the thing, which neither *fauces* nor *ora* does.

703—711: in the case of many things you must state several causes, to be sure of including the actual cause: for instance if you see a dead body at some distance, you may have to suggest this and that cause, though you are sure only one has occasioned the death.—Such an introduction to a series of cases which admit of more than one explanation is, as has often been remarked above and as may be seen in Epicurus' letter to Pythocles, very characteristical of this philosophy: *τὸ δὲ μίαν αἰτίαν τούτων ἀποδιδόναι, πλεοναχῶς τῶν φαινομένων ἐκκαλουμένων, μανικόν κ.τ.λ.* says Epic. l. l. 113. 704 *satis est* can hardly in sense apply to *pluris*: *opus est* or the like seems to be required. *una tamen sit* i.e. causa, though you are not able to determine it. 707 *una*, compared with 704 *ună*, appears to be the adjective: ut dicatur ună causa leti illius hominis: the ellipse is harsh anyhow, and it might be simpler to take *unā* as the adverb, 'that among these various causes the cause of his death may be stated'. 710 *genere ex hoc*, the whole class of causes of death.

712—737: the Nile may rise from various causes: from the etesian winds blowing up the stream and stopping the waters; or from sand accumulating at the mouth; or perhaps rather from the rains at its source caused by these winds collecting the clouds there against the high mountains; or from snow melting on the lofty Ethiopian hills. 712 *in aestatem*: 875 *in lucem tremulo rarescit ab aestu*: 'every summer', 'every day': [Lucil. XXVIII 26 *Cui saepe mille imposui plagarum in diem*; Plaut. aul. 322 (316) *in nonum diem solet ire coctum* i.e. nono quoque die: see Ussing there who cites Stichus 635; Ter. eun. 540:] Hor. od. III 29 42 *in diem Dixisse*; sat. II 6 47 *in diem et horam*; Juv. VI 183 *inque diem septenis oderit horis*; Livy XXXI 29 15 *mutabilibus in diem causis*; Tac. ann. III 71 *neu saepius quam bis eundem in annum*: Lucr. has the more usual *inque dies* at least 8 times: V 274 *privas mutatur in horas.* 714 comp. Manil. III 271 *oras, Quas rigat aestivis gravidus torrentibus amnis Nilus.* *saepe*: you would expect *semper*; Bentl. in consequence thinks the v. spurious; but *saepe* seems sometimes to be used vaguely by Lucr. as if it were almost an expletive; V 430 *saepe* answers to II 1062 *semper.* 715 *Aut quia* cet.: Sen. nat. quaest. IV 2 22 *si Thaleti credis, etesiae descendenti Nilo resistunt et cursus eius acto contra ostia mari sustinent*; and so Diodorus I 38 2, who gives a very detailed account of the causes assigned. 716 both Greek and Latin lexicons give copious references to the authors who speak of these etesian winds, the name given as Lucr. says to the *aquilones* at midsummer: 730 and V 742 *etesia flabra aquilonum.* *quĭ*: see n. to II 404. *etesiaĕ esse*: 743 *Remigĭ oblitae*; Cic. orator 152 *sed Graeci viderint: nobis ne si cupiamus quidem distrahere voces conceditur...*

at Ennius semel Scipio invicte, *et quidem nos* Hoc motu radiantis etesiae in vada ponti. *hoc idem nostri saepius non tulissent, quod Graeci laudare etiam solent.* Virgil brought the bad habit somewhat more into fashion; see Wagner quaest. XI 3. 717 comp. Mela I 53 *sive quod per ea tempora flantes etesiae . . venienti obviae adverso spiritu cursum descendentis inpediunt.* 718 *Cogentes, cogunt*: see n. to I 875, and comp. Aen. VI 684 *tendentem*, 685 *tetendit.* 725 comp. Mela l. l. *aut harenis, quas cum fluctibus litori adplicant, ostia obducunt*: our verse is obscure: formerly I took *Fluct. adv.* of the river's stream met by the opposing sands; and this is possible. But now I understand it of the waves of the sea blown in by the etesian winds and therefore right against the river's current: then both in Cic. Phil. II 21 and Cato de re rust. 100, the only other passages cited for the word, *oppilo* is active, and so it may be here; the sand bars up the mouths against the opposing waves of the sea, *contra* being an adv.: if, as Lamb. says, *oppilo* is neut. here, then *ostia contra* is used as in 715. But in the passage cited for the simple *pilo*: *hastam pilans prae pondere frangit* from the Histrian war of Hostius: it is also active. 726 *ruit*: Virg. geor. I 105 in the opposite sense *cumulosque ruit male pinguis harenae*: '*ruit*, levels, whereas *ruam acervos* Hor. sat. II 5 22 means to heap up' Conington. 727 *Quo fit uti pacto* = quo pacto fit uti: comp. 204 and n. to II 1004: *fit uti* has become so entirely a single particle in force, that he here says *fit uti fiat* for *fit*, 729 *Fit uti fiant* for *fiunt*: see n. to 415. 729—734 he gives the theory of Democritus which is narrated with much clearness and fulness by Diodorus I 39, who throws great light on Lucr.: Democritus intended to refute the common opinion, which Lucr. gives last: the snows melted in summer not on the Ethiopian mountains, but at the north pole, and were carried by the etesian winds all the way up to the sources of the Nile where they were stopped and collected by the high mountains and descended in rain. 729 *caput ei*: 636 and V 270 *caput amnibus*; [Ter. Andr. 458 *illic est huic rei caput*; Livy VIII 4 5 *Romam caput Latio esse*; XXIII 10 2 *brevi caput Italiae omni Capuam fore*;] Lucr. VI 643 *Finitimis ad se convertit gentibus ora*; V 1390 *Haec animos ollis mulcebant*; 1319 *venientibus ora petebant*; IV 364 and III 129 *nobis.* 730 *et. fl. aq.* occurred V 742. 735—737 he concludes with the common theory: Sen. l. l. 17 *Anaxagoras ait ex Aethiopiae iugis solutas nives ad Nilum usque decurrere. in eadem opinione omnis vetustas fuit. hoc Aeschylus Sophocles Euripides tradunt. sed falsum esse plurimis argumentis patet*: Lucr. having never journeyed to the sources, is less positive than Seneca: comp. the opening of Eurip. Hel. and Valckenaer diatr. p. 30. 737 *Tabificis* is a common enough word, but hardly occurs elsewhere in this sense.

738—768: Avernian districts are so called because birds cannot live there: there is one at Cumae, another in the acropolis of Athens, another

in Syria: the effects are quite natural, so that you need not look on them as the gates of hell. 740 *quod Averna* cet.: *quod* has here much the same force as in IV 885 *Id quod providet* and the passages quoted in n. there: 'the explanation of why they are called by the name of Averna is this': without *Averna* Lachmann's *quo* for *quod* would be very well; with it his reading is scarcely intelligible. 742 *loca venere*: the accus. after *venio*, except in the case of *domum* or the name of a town, is not common: Aen. II 742 *Quam tumulum antiquae Cereris sedemque sacratam Venimus*; 781 *terram Hesperiam venies*; and ecl. I 66. 743 *Remigi*: see n. to 716 *etesiae*: this licence also he employs only twice; see n. to IV 741. *Rem. pen.*: Aen. I 301 *Remigio alarum*, VI 19 *Remigium alarum*; Ov. ars II 45 *Remigium volucrum . . pinnas*: πτερύγων ἐρετμοῖσιν ἐρεσσόμενοι. 744 *profusae*: Festus p. 229 '*profusus*...alias abiectus iacens, ut Pacuvius in Teucro *Profusus gemitu* cet.' [745 comp. Caes. b. Gall. VII 46 3 *ut natura montis ferebat*; Hirt. b. Gall. VIII 12 4 *celerius quam consuetudo fert equestris proelii*.] 747 *Is locus* cet.: there is no reason to doubt what he and Virgil say of the Avernian lake when it was surrounded by thick wood: see Servius Aen. III 442. 'No bones existed in the valley at the time I visited it, excepting of some birds who in crossing the valley had been arrested on the wing by the noxious effluvia as at the lake of Avernus of old' Prof. Daubeny quoted in Murray's hand-book for south Italy, speaking of what is supposed to be the *Ampsancti valles*: exactly the same is told of some marshes in the Carolinas surrounded with thick woods, by a traveller Bosc in the early part of this century. 750 comp. Philostr. Apollon. II 10, speaking of the Ἄορνος πέτρα near Nysa, ἐν κορυφῇ τῆς πέτρας ῥῆγμα εἶναί φασι τοὺς ὑπερπετομένους τῶν ὀρνίθων ἐπισπώμενον, ὡς Ἀθήνησί τε ἰδεῖν ἐστιν ἐν προδόμῳ τοῦ Παρθενῶνος καὶ πολλαχοῦ τῆς Φρυγῶν καὶ Λυδῶν γῆς: for such *Averna loca* or *Plutonia* or *Charonia* comp. Cic. de div. I 79 *ut et Ampsancti in Hirpinis et in Asia Plutonia quae vidimus*; Strabo p. 244; Pliny II 207. 753 *fugitant non* i.e. *non fugitant* cet., *Sed natura* cet.: comp. Cicero quoted to V 383. 754 *Pervigili* is the gen. of *pervigilium*: he alludes to the famous story told at length by Antigonus of Carystus quoted by Lamb. and Ovid met. II 542—565, how the daughters of Cecrops disobeying the orders of Pallas opened the chest in which the infant Erichthonius was shut up, how the watchful crow espied them and flew away and told it to Pallas, who in anger at the bad news expelled it and all other crows for ever from her acropolis: [see Pliny X 30; Aelian V 8; Apoll. hist. mir. VIII.] 'As to the crow, the explanation seems to be that these birds, which are seen in great numbers around the rocks of the acropolis, seldom rise to the summit' Leake Athens I p. 206: at all events no Avernian exhalations are now perceived there. To what Greek poets Lucr. refers I do not know. [But see Schneider's Callimachus II p. 98.] 755 *loci ope*: see n. to III 374 *animae*

elementa, and IV 741. *ope suapte* i.e. sua ipsius opera: Festus p. 310 '*suopte* suo ipsius, ut *meopte* meo ipsius, *tuopte* tuo ipsius': *suopte*, *suapte* are found in Plautus Cicero and others; Plaut. miles 391 appears to have *suumpte amicum*; Priscian attests *meapte*, *tuapte*, *suapte*, *nostrapte*, *vestrapte*. 756 *fertur esse videri* i.e. ut ferunt, videtur esse: *videtur esse* is almost a periphrasis for *est*, is seen, found to be, φαίνεται ὤν: so 977 *videtur*, and elsewhere. 757 *Quadripedes quoque*, as well as birds. 758 *vis ipsa*, without anything else. 759 *mactata*, i.e. haec animalia: see 188 *lata*, *extructa*, with *nubes* for antecedent; and n. to I 352. 761 *effiant*: see n. to II 1004. 762 *his reg.* i.e. in all these various places, not at the Avernian lake alone; for instance at the *Plutonia* of Cicero l. l. and *Ampsanctus*, of which Aen. VII 568 *Hic specus horrendum et saevi spiracula Ditis Monstrantur, ruptoque ingens Acheronte vorago Pestiferas aperit fauces.* 762 *ne forte*, 764 *forte*: Cic. ad Att. XV 6 has *si forte*, *ne forte* in two consecutive clauses of a sentence. 763 *post hinc*: see n. to III 529 *post inde*: Aen. VIII 546 *Post hinc ad navis graditur.* 765 *Naribus* cet.: Aelian Pliny and others relate this or similar stories; Martial XII 29 5 *Cervinus gelidum sorbet sic halitus anguem.* Creech observes that there is a manifest scoff in this illustration. 766 *ferarum*: Hyginus also applies this word to serpents, Martial VI 15 2 to a *formica.*

769—780: let me repeat that the earth has atoms of all shapes, some pleasant, some offensive to the taste, and to all the other senses. 769 *saepe ante*: especially II 398—477, and IV 522—721. 770 and 776 *figuras* are atoms: see n. to II 385. 771 *cibo quae sunt*: 1095 *quae sint morbo mortique necessest Multa volare*; [IV 1019 *Indicioque sui facti persaepe fuere*; IV 783 and V 1391 *cordi est, sunt*; V 539 *non est oneri*;] Virg. geor. III 511 *Mox erat hoc ipsum exitio*; Ov. her. 17 (16) 147 *Ipse malo metus est*; 167 *Fama quoque est oneri*: the double dat. is more usual, as 1229 *Hoc aliis erat exitio*, [and I 759 *veneno* (sunt) *Ipsa sibi.*] 774 *ante*: IV 633 *Nunc aliis alius qui sit cibus* cet.: he adopts the language of IV 677, where smell is spoken of, *Verum aliis alius magis est animantibus aptus Dissimilis propter formas.* 778 *iactu*: see notes 1, and comp. II 846 *Nec iaciunt ullum proprium de corpore odorem*; IV 673 *adiectus odoris* is the same thing: *naris adiectus odoris Tangat*: comp. too II 1047 *animi iactus* = *iniectus.* 780 *tristia*: see n. to I 944 *Tristior*: Auson. epist. 15 8 *Et quae sapore tristia.*

781—817: then many things are noxious, often fatal, either to men generally or to men in certain conditions of health; as the shade of certain trees, steam of hot water, fumes of charcoal, sulphureous exhalations, still more so those from mines. 783 *Arboribus*: Pliny XVII 89 mentions the walnut and juniper; Marullus in marg. cod. Vict. 'Virg. Iuniperi gravis umbra'. 787 *Floris odore*: Plut. sympos. III 1 p. 647 F

ἱστοροῦσι γὰρ ὅτι καὶ σκιὰ σμίλακος ἀποκτίννυσιν ἀνθρώπους ἐγκαταδαρθόντας ὅταν ὀργᾷ μάλιστα πρὸς τὴν ἄνθησιν: Dicaearchus frag. 60 in Mueller frag. hist. Graec. II p. 261 tells the same of a plant on Pelion, τοὺς δ' ἁψαμένους αὐτῆς ἀναιρεῖ τῇ ὀσμῇ. 789 *Multa* cet., 790 *Quod*: Lucr. seeks emphasis by placing many words before the introductory conjunction; as V 440 *Propter dissimilis formas variasque figuras Quod non omnia* cet.; I 751 *quae cernere non quis Extremum quod habent*: so with the relative, as I 557 *longa diei Infinita aetas anteacti temporis omnis Quod fregisset*; IV 607; VI 980: and so IV 430 *Tecta solo iungens atque omnia dextera laevis Donec in obscurum* cet. 793 describes one labouring under epilepsy or *morbus comitialis*; comp. III 487 foll.: Lachmann's treatment of this v. is quite preposterous; some diseased condition is clearly required, as a healthy person is not acted upon in the way stated. 795 *man. effl.*: Ovid met. III 39 *Effluxere urnae manibus*. 796 *si od.*: see n. to II 404. 797 *per artus* here is simply *per totum corpus*, or *membra per artus* = omnia membra; see also n. to II 271. 799 *lavabris* is to *lābris*, as *lavatrina* to *latrina*. 800 *solio*, which properly means the seat in the bath on which the bather sat, here, as often, seems to denote the whole basin which held the hot water. But in Lucretius' time it was prob. only a tub or pan for a single bather; as Celsus VI 26 5 *in solium is aquae calidae resupinus demittendus est*; I 4 *in solium non descendere*. *solium* seems synon. with *lavabrum*; though in later times the *solium* became a large *piscina* holding many bathers at once. Yet *solium* may be the *piscina* here; comp. Petron. sat. 92 *circa solium sedentibus*. 804 *membra domus*: Gronov. obs. III 5 p. 467 quotes Cic. ad Q. frat. III 1 1 *nec habere poterat adiuncta cubicula et eiusmodi membra*, and Pliny epist. II 17 9 *dormitorium membrum*: comp. also V 6 15 *multa in hac membra; atrium etiam ex more veterum*; Apul. met. III 28 *singula domus membra cingit armata factio*. But as said in notes 1, the reading is very very uncertain: I doubt whether I am right even in adopting *viri* for *vini*; for Lach. is certainly wrong in saying that *At* proves he has not passed to a new question: Lucr. like Cicero often uses *at* to introduce a fresh illustration; see the many instances given in n. to IV 414 *At conlectus*: comp. too Hor. sat. II 4 51 *Massica si caelo suppones vina sereno ...decedet odor nervis inimicus*, which will support *nervis*, perhaps *vini* as well. 805 *mactabilis* is another ἅπαξ λεγόμ.: Lach. compares Accius 421 *leto tabificabili*. 810 *Scaptensula* is the σκαπτὴ ὕλη of Macedonian Thrace: Lach. explains the strange Latin form with much probability: the *s* he supposes to be like the *s* in *silva*, and to represent an older form of the Greek ὕλη, always retained by the inhabitants of the place; the *n* then in Latin merely marks the lengthened vowel, as in *thensaurus Termensium* and the like: comp. too *totiens toties, vicensimus vicesimus*, and the numerous instances in which the Greeks express the Latin *-ens* by -ης, shewing the pronunciation of the former: Lach. then

conjectures that the short *u* is due to the Roman soldiers confounding the end of the word with one of their own diminutives. But as in the age of Lucr. a Roman soldier was incapable of making a false quantity in his own language, I am unwilling to assume his being guilty of the same offence in Greek. As we know then from Horace's *sĭlŭae*, that the *i* of *silva* was short by nature, and as in Il. E 708 and H 221 the Boeotian and therefore Aeolian Ὕλη has ῠ, the old Greek word in question may well have been σῠλα. *Qualis* cet. depends on *Nonne vides* of course. [812 *colores*: Silius I 233 *redit infelix effosso concolor auro*; Stat. silv. IV 7 15 *Pallidus fossor redit erutoque concolor auro.*] 815 [iis] *Quos*: see n. to I 883. *necessis* is gen. of *necesse*; Lach. compares and amends Donatus to Ter. eun. 998, and quotes from the senatus cons. de bacchan. inscr. Lat. I 196 4 *necesus esse* i.e. necessus, the old gen. for *necessis.* 817 *prompta caeli*: 1267 *populi loca prompta.*

818—829: in the same way these Avernian spots send up a poisonous steam, so that birds on coming across it are disabled and tumble down; and when they reach the sources of it, are quite killed.—He dwells at such great length on these *Averna* because they illustrate so many of his favourite first principles; the poet as usual having to give place to the philosopher, when the two characters come into collision. 821 *Quo* = et eo, and connects *impediatur* with *Ut* of 820: see n. to V 873. 823 *derigit* is neuter and = derigit se; see n. to III 502: auctor belli Hisp. 29 *hinc derigens proxima planities aequabatur*; which is very similar to its use in Lucr.; that work too represents the homely style of a contemporary of the poet: II 198 *Derecta*; IV 609 *viis derectis*: from Ribbeck's edition I find that the mss. of Virgil are ten times in favour of *derigo*, once only of *dirigo*; Caesar's best mss. also as well as those of the auctor belli Alex. (? Hirtius) as a rule have *derectus*, which Halm restores from P in Cic. pro Caelio 38 and 42; the ancient and sole ms. of the last books of Livy too has *derectus*; the palimps. Ver. of Pliny XI 58 *derigunt.* Comp. too now Schuchardt's vulgar Lat. II p. 73, who gives many other instances of *de-* from inscriptions and old mss.; so that this was probably the only genuine ancient form and the distinctions drawn by Isidore and others between *derigo* and *dirigo* unreal and fanciful. 826 *aestum*: III 173 *mentis qui gignitur aestus.* 828 *vomenda*: Aen. IX 349 *vomit ille animam.* 829 comp. V 359 *quia nulla loci fit copia circum.*

830—839: sometimes this exhalation causes a partial void, so that the bird cannot support itself on the wing, but falls down and perishes. 836 *nixari*: see n. to III 1000; it is almost or quite a Lucretian word, and is the frequentative of *niti*, which is properly said of a bird on the wing: 834 *pinnarum nisus inanis.* 838 *iacentes*, because unable *nixari insistereque alis*; it has much the same force as 744 *molli cervice profusae.*

840—847: the water of wells is colder in summer, because they let out their seeds of heat through the earth which is then rarefied by heat: the contrary is the case in winter for the contrary reason. 845 *Frigore—concrescit*: see n. to III 20 *nix acri concreta pruina.*

848—878: the fountain by the temple of Hammon is cold by day, warm by night, not, as is absurdly said, because the sun below the earth warms it, but because the earth about it condenses at night and so squeezes into the water its seeds of heat; and then by day receives these back again.—Curtius Arrian Pliny Mela and others speak of this property of the fountain: Ovid met. XV 309 *medio tua, corniger Hammon, Unda die gelida est, ortuque obituque calescit.* Curtius IV 31 gives the fullest and most precise account. 854 and 863 *corpus aquai*: Emped. 285 ὕδατος τέρεν δέμας ἀργυφέοιο. 858 *satiare*: Cic. Arat. 364 *Cum supera sese satiavit luce*, where mss. have *sociavit*; Germanicus 588 *Siderea vix tum satiatus luce*, the words of Aratus being ὁ δ' ἐπὴν φάεος κορέσηται. 864 *roriferis* cet.: Aen. IV 351 *quotiens umentibus umbris Nox operit terras.* 868 *aqüae*: see n. to 552. 869 *dimovit* appears to have the same force as in Virg. geor. II 513 *Agricola incurvo terram dimovit aratro.* 875 *in lucem*: see n. to 712 *in aestatem.* 877 *quasi*, in the sense of 'as', is very common in Lucr. 878 *nodos*: a bold continuation of the metaphor involved in *exolvit*: Hor. epist. I 3 3 *Hebrusque nivali compede vinctus*; Petron. sat. 123 v. 188 *undarum vincula rupit*; comp. too 531 *mora quae fluvios passim refrenat euntis.*

879—905: there is also a cold fountain which ignites tow or pinewood put over it: it contains many seeds of latent fire, which rise up and set on fire this tow or wood, as flame will light a freshly extinguished wick, before actual contact.—Pliny II 228 and Mela II 43 tell this fact of a fountain at Dodona, to which Lucr. probably refers. 890 *endo*: see n. to I 82 *Indugredi*: Ennius in ann. has *Indu mari magno. Aradi*: Aradus or Arvad a populous island on the coast of Phoenicia: this fountain was very famous; see Strabo p. 754 for the use the inhabitants made of it; it is said to be used in the present day. 891 *scatit* in V 40 too takes a gen. 892 *multis aliis* cet.: Pliny II 227 *dulcis haustus in mari plurimis locis, ut ad Chelidonias insulas et Aradum et in Gaditano oceano*: Leake numism. Hellen. insular Greece p. 72 'opposite to the fountain [Arethusa] at the distance of about 200 yards a large submarine stream of fresh water rises in the sea, of which the Arethusa itself is apparently a branch'; Sir E. Tennent describes similar springs in Ceylon. 894 *intervomit* appears not to be found elsewhere. 896 *sem. quae*: see n. to I 15. 900 *noc. ad lum.*: Aen. VII 13 *Urit odoratum nocturna in lumina cedrum*: with Circe the *cedrus* served for fire and candle. 901 the language of Pliny l. l. is very similar, *in Dodone Iovis fons...si extinctae admoveantur* (i.e. faces) *accendit. ubi admoveas*: see n. to II 41 foll. 904 *imbuat*

ignis, an expressive metaphor, though less bold than 1176 *sitis arida, corpora mersans*: 896 he uses *scatere* of the seeds of fire, but they may be said to be part of the fountain. 905 *fieri quoque in illo fonte*: he means *fieri in illo quoque fonte*; see n. to v 192.

906—916: to discuss now the magnet, a stone which has the power of attracting iron, and communicating this power to a series of pieces of iron. 908 *Magneta*: Plato Ion p. 533 D ἐν τῇ λίθῳ ἣν Εὐριπίδης μὲν Μαγνῆτιν ὠνόμασεν, οἱ δὲ πολλοὶ Ἡρακλείαν: what follows is so like Lucr. that Lamb. thinks he had Plato before him. Plato however seems to misrepresent Euripides: see Hesych. and Photius s. v. Ἡρακλεία λίθος: ἡρακλεία (ἡράκλεια) λίθος was the regular Greek name for the loadstone, the older Greek writers, as Eurip., usually denoting by μαγνῆτις λίθος a quite different stone: see Theophr. π. λίθων 41, Hesych. Photius and the other lexicographers. 909 *Magnetum* of Lydia, our extant authorities unanimously declaring that the names come from the Lydian Magnesia and Heraclea: Sophocles indeed, the oldest of them, calls it the 'Lydian stone', the name usually given to the touchstone: see Hesych. s. vv. Ἡρακλεία, and Λυδικὴ λίθος σίδηρον τηλόθεν προσηγάγου. Comp. Salmas. exerc. Plin. p. 775 776, and esp. Buttmann in the Mus. d. alt. Wissensch. II. p. 5—52, who makes it probable that the local derivations of both the magnet and the Heraclean stone were mere fictions and that the latter meant originally 'Hercules' stone', to denote its attractive power. Pliny XXXVI 128 names the Thessalian Magnesia as one of the districts where the loadstone was found; so that some connected the name with it perhaps. [*fit ortus*: comp. Cic. de leg. III 19 *cuius primum ortum . . inter arma civium . . procreatum vidimus*: so mss. and Halm, *procreatam* Manutius.] 916 *permananter* appears to be a ἅπαξ λεγόμ. Plato l. l. ὥστ' ἐνίοτε ὁρμαθὸς μακρὸς πάνυ σιδήρων καὶ δακτυλίων ἐξ ἀλλήλων ἤρτηται· πᾶσι δὲ τούτοις ἐξ ἐκείνης τῆς λίθου ἡ δύναμις ἀνήρτηται.

917—920: but many points have to be cleared up, before we come to the actual question. 917 *Hoc genus*: comp. *id genus, quod genus, omne genus*. *multa* cet.: he dwells on the magnet at what appears so disproportionate a length, because the phenomena seem to him to illustrate so many of his favourite first principles. The elaborate criticism in Galen de nat. facult. I 14 of Epicurus' theory of the magnet, extending over many pages, proves that the latter must have dwelt on the subject at as great length as Lucr. does, and that he explained the phenomena in a similar manner. 919 *lon. amb.*: 1081 *Nec tibi tam longis opus est ambagibus*; Aen. I 341 *longae Ambages*; geor. II 46 *Atque per ambages et longa exorsa*; Ov. met. IV 476 *non longis opus est ambagibus*.

921—935: we have said already that particles are constantly streaming from all things, which affect in various ways all the senses. 923—935 are with scarcely any difference a repetition of IV 217—229.

936—958: let me repeat that all things in being are of rare and porous bodies, so that particles can and do pass through them in all directions: this is proved by the whole of nature. 936 *rep. Comm.*: see n. to I 418. 937 *primo*, 329 foll. 942 *speluncis* cet.: I 348 *In saxis ac speluncis permanat aquarum Liquidus umor et uberibus flent omnia guttis*: Wak. compares Lucan IV 301 *Antra nec exiguo stillant sudantia rore.* 944 *Manat* cet.: Enn. ann. 399 *Tum timido manat ex omni corpore sudor*; Aen. III 175 *Tum gelidus toto manabat corpore sudor.* 950 *cum poc.* cet.: I 495 *retinentes pocula rite*; III 912 *tenentque Pocula saepe homines.* 951 *dissaepta*: the subst. hardly occurs elsewhere, at least in this sense, though the verb is not uncommon. 952 *vapos*: Nonius p. 487 'vapor et vapos et timor et timos et labor et labos ita sunt ut color et colos. Lucretius lib. VI *Pervolitant, permanat odos frigusque vaposque*': Augustus in his res gestae still keeps *honos*; Livy XXVIII 26 14 has *colos*: see too Neue I p. 167 foll. 954 *Galli lorica*: Lach. cites Varro de ling. Lat. V 116 *lorica, quod e loris de corio crudo faciebant. postea subcidit Galli e ferro sub id vocabulum, ex anulis, fere iam tunica*; Tac. ann. III 43 *quibus more gentico continuum ferri tegumen*: this correction of Lach. seems to me certain; Lucr. had doubtless seen or heard how in sieges fire in various shapes had taken effect on such steel cuirasses. *coercet*: in IV 647, 657 and Livy II 58 7 *nec pudor nec metus coercebat*, it is used absolutely as here, where *qua* defines the object. 955 956: by the simple transposition of these vss. I flatter myself I have made this passage clear: et cum tempestas in terra caeloque coorta est, cumque simul cum ea morbida vis extrinsecus insinuatur, tum haec tempestas et haec vis, terra coortae in caelum remotae, caelo coortae in terram remotae, iura facessunt. My reading is illustrated and confirmed by 1098 *Atque ea vis omnis morborum pestilitasque Aut extrinsecus ut nubes nebulaeque superne Per caelum veniunt aut* cet.: in these *tempestates* are the *nubes nebulaeque* which bring the *morbida vis*; comp. too 1119—1124, and 1141 foll. 956 as said in notes 1, though the mss. are in favour of *iure*, I have returned to *iura*, admonished that *facesso* seems to have the sense of 'to be off' only as an imperative, or quasi imperative: Plautus' play on the two meanings, rudens 1061, well illustrates this: *ego opinor rem facesso.—si quidem Sis pudicus, hinc facesse*: I find, it is true, *facesso*, *facessit*, *facessunt*, *facesset*, one or other, at least a dozen times with this sense in the metamorph. of Apuleius; but he, an ape of the older writers, probably generalised from the instances of the imperative he found in them.

959—978: again particles emitted from bodies act very differently on different things: fire hardens one thing, melts another; and so does water; what is pleasant to one creature is hateful to another. 962 *facit are*: IV 28 *ordia prima*: Varro de re rust. I 41 2 has *facit putre*; he also uses *consue quoque faciunt, excande me fecerunt, perferve ita fit*;

Cato has *ferve bene facito*: Haupt in Hermes I p. 403 justly says that Sen. de beata vita 26 2 is hardly Latin unless you read *obstupe faciant*, not *obstupefaciant*. 965 *posta*: III 871 *posto*, 857 and I 1059 *posta*; VI 999 *praeposta*: he also has *impostus dispostus* and *oppostus*, as well as *repostus* which the metre requires. 968 *condurat* seems not to be found elsewhere. *ab igni*: II 99 *vexantur ab ictu*: this use of *ab*, 'after', 'just after', is common in Ovid, as met. III 273; IV 329; 465; XIV 352; ars III 226; her. 18 (17) 69; ex Ponto III 4 73; IV 5 26; trist. IV 10 122 *ab exequiis*, an imitation of Prop. IV (III) 1 24: in Livy I have noted down very many expressions such as these, *ab seriis rebus ludicrum fecit; ab his praeceptis, ab hoc sermone, ab hac oratione, ab hac voce, ab hac contione digressi, dimissi*; *a primo colloquio extemplo missi sunt.* 971 comp. Odyss. ι 359 Ἀλλὰ τόδ' ἀμβροσίης καὶ νέκταρός ἐστιν ἀπορρώξ. *Effluat* I now take as said of the oleaster: Pers. III 20 *effluis amens*; where Jahn well compares Petron. sat. 71 *ne* (i.e. amphorae) *effluant vinum*; Claud. cons. Probi et Ol. I 51 *Quantum stagna Tagi...Effluxere decus*, an imitation no doubt of older writers; and observes that this and similar words, *mano* espec., are said of the thing out of which a fluid comes as well as of the fluid itself, with or without an accus.: Pliny XIV 122 *arborum suco manantium.* *vero* = vere, is common in Plautus: in Jahn's Jahrb. 91 p. 48 are cited Amph. 964, 678, capt. 567, Pseud. 1191, trin. 210, merc. 685, Cas. IV 2 11, truc. II 2 47: Sall. hist. fr. IV 11 mss. have *vero an*; Livy X 23 5 *vero gloriaretur*, where Madvig reads *ex vero.* 973 *amarac.*: see n. to II 847: Gellius praef. 19 *vetus adagium est, nihil cum fidibus graculo, nihil cum amaracino sui*: is it a fact that perfumes poison swine, or did the proverb suggest the notion? 977 *videtur*, φαίνεται ὤν, not εἶναι: so 756.

979—997: once more, the pores of things differ, as well as the particles which things emit; so that by different kinds of pores the different senses receive each its own object: thus too one thing will pass through a metal, another through wood, and so on; and one thing will pass more quickly than another through the same pore or opening. 979 *quam, prius*: see n. to III 973. 986 *alio* i.e. in alium sensum: II 683 *Nidor enim penetrat qua fucus non it in artus, Fucus item sorsum, sorsum sapor insinuatur Sensibus.* 991 *lignis, Argento, vitro* = per ligna, cet.: '*lignis*, de resina lignis manante accipiendum' Lach.: to me it seems to be used more generally. 994 *transmittere* is neuter. 996 *ante*, i.e. 981 foll.

998—1041: and now we can easily explain the magnet's attraction: particles streaming from it cause a void between it and the iron; these particles in a united mass fill the void, and as the particles of iron are very closely packed, the whole ring must follow, when a certain number have thus advanced: this takes place on all sides, as particles stream from the magnet all round, if not by their own motion, yet by impact:

as there is a void too on one side of the iron, the air on the other side helps to push it on as well as the air in motion within the ring. 998 *confirmata, locata, praeposta, parata*, a curious agglomeration of participles, though *praeposta* seems to have almost the force of a subst., 'points laid down beforehand'. 1003 *sive*: comp. I 955 *Seu locus*. 1009 *primoribus* = primis: see Forc. 1011 *horror*: II 410 *serrae stridentis acerbum Horrorem*: *horror* in these two places = quod facit horrorem. 1012 *ibus*: II 88 *a tergo ibus obstet*: here, as there, the obsolete form has occasioned a corruption: *ex elem.* depends on *corpora*, *e ferro* on *coorta*; though Lucr. does not avoid two prepositions in the same clause: IV 694 *Ex alto primum quia vix emittitur ex re*: see n. to I 412: [comp. also Caes. b. Gall. I 26 3 *ad multam noctem etiam ad impedimenta pugnatum est*; II 25 3 *cum pro se quisque in conspectu imperatoris etiam in extremis suis rebus operam navare cuperet*; III 29 3 *in Aulercis.. in hibernis conlocavit*; III 20 4 *quas in convalle in insidiis conlocaverant*; IV 1 4 *pagos.. ex quibus quotannis singula milia armatorum bellandi causa ex finibus educunt*; VI 18 3 *in publico in conspectu patris adsistere*; b. civ. III 101 6 *qui ex veteribus legionibus erant relicti praesidio navibus ex numero aegrorum*; auctor bell. Afr. 8 5 *cum civibus in patria in suis fortunis esse incolumes*; 19 1 *ex adversariis perfugere plures ex omni genere hominum*; 42 3 *in acie in cornu dextro ac sinistro ex iniquiore loco pugnare*: the repetition seems a peculiarity of this writer's homely style.] 1016 *compagibus*: 1071 *Quam laxare queant compages taurea vincla.* 1017 *unde cumque* appears here to have the sense of *ubicumque*. 1020 *nec ipsa* cet. i.e. nam ipsa quidem sponte sua non possunt. 1022 *quare—iuvatur*: Lucr. is fond of parenthetical clauses like this: comp. III 1068, 790 and V 134, in all which passages, as here, the text is made clear by this simple method without any change whatever: such parentheses are a very marked feature of Livy's style. [*id...Haec quoque res*: Catull. 76 15 *Una salus haec est, hoc est tibi pervincendum, Hoc facias sive id non pote sive pote.*] 1023 *adiumento* implies something which adds its assistance to the forces of the thing itself. [1025 *vacuatus*: Mart. XI 5 6 *Elysium liceat si vacuare nemus.*] 1027 *prŏpellat*: IV 195 *a tergo quae provehat atque prŏpellat*, perhaps the only examples of this quantity: 1029 *prōpellat*, as elsewhere. 1032 *Parvas* here appears to be emphatical, 'to the very smallest parts'. 1036 *rebus circumd.*: I 87 *circumdata comptus*, a different constr.; see n. to I 38. *adpositus*: Sen. nat. quaest. II 6 *aer continuus terrae est et sic adpositus ut statim ibi futurus sit unde illa discesserit.* 1040 *quo* cet.: a relative clause coupled with *et partem in vacuam*, as so often in Lucr. and the best writers: comp. 1015 *Quod facit, et sequitur*; II 140, and some of the examples in n. to I 718. 1041 *con. sum.*: 326 *magnum conamen sumit eundi.*

1042—1064: but if brass come between the magnet and the iron,

then the iron is repelled, not attracted, because the stream of particles from the brass first fills the pores of the iron; those from the magnet follow, and finding the iron already occupied, beat on it and repel it: other things are not thus repelled like iron for various reasons; gold is too heavy, wood too porous, iron is the due mean. 1044 *Samothracia* seem to be mentioned by Pliny XXXIII 23, a most obscure passage: Isidore orig. XIX 32 5 says that the Samothracian ring is *aureus quidem, sed capitulo ferreo*: whether this is meant by Lucr. I cannot say. 1048 *Aere interp.* cet.: Lucr. is here completely mistaken from too hasty an induction: neither the attractive nor the repulsive power of a magnet is sensibly affected by the interposition of any body which is not sensibly magnetical, be it metal glass wood paper or whatever else: nay the magnet works equally in a vacuum, the absence or presence of air making no difference: this by the way overthrows the poet's argument 1022—1041, where he brings in his favourite air to assist in explaining the attraction between the loadstone and iron. But if Lucr. has failed in solving the mystery, no one seems to have succeeded. 1050 *Praecepit*: 803 *nisi aquam praecepimus ante.* 1053 *fluctu* is the same as the *aestus* of 1051 1056 and 1059, and the *flumine* of 1064. 1054 *respuit* and 1055 *resorbet* appear to be used in designed contrast. 1056—1064 I have joined with what precedes, as manifestly belonging to the same argument, the repulsive power of the magnet through *aes*, and have ended the paragraph with 1064: comp. 1063 *Aeris ubi* cet.: this is shewn too by 1057 *impellere*, 1060 *inpellier*, which imply driving from, not drawing to: the purpose of these lines is plainly this: he has shewn above why iron is attracted and not other metals; if now it is repelled in the way stated, it might be thought that other substances which cannot be attracted, would a fortiori be repelled where iron is repelled: this inference he attempts to obviate in these vss. by asserting that gold is too heavy, wood too porous. 1057 *impellere* to push on and so repel. 1058 *stant*: Lach. p. 85 compares II 181 and V 199 *tanta stat praedita culpa*, where *stat* = est; but here *stant* seems to have its proper force of standing still, the opposite of *impelli.* 1059 *cum*: see n. to I 755. 1063 *Aeris* cet. refers back of course to 1044 foll. and 1048 *Aere interposito* cet.: Lachmann's arrangement of the paragraphs quite obscures this connexion, which some I see have absurdly misapprehended, corrupting the text by unmeaning changes. 1064 *flumine*, as 1053 *fluctu.*

1065—1089: the fact that only iron is attracted by the loadstone need not excite wonder: many things can be joined together only by some one substance, stones and woods and various metals; then some liquids will mix, others will not: in all cases of mixture and adhesion the cavities of one substance must mutually come in contact with and fit the solid parts of the other; sometimes too the union is like that of hooks and eyes, as indeed seems to be the case with this stone and iron.

1065 *haec*, such cases of attraction; referring not to the exceptional case which immediately precedes, but to 998—1041. 1067 *singlariter*: though no other instance is known of this contraction, it must be genuine; and does not seem harsher than 1088 *coplata*, which appears only in Lucr., or than *perviglanda striglibus frigdaria* and the like: [comp. too lex colon. Genetivae c. 65 (ephem. epigraph. vol. 3 p. 95) 'figlinas teglarias maiores tegularum CCC tegulariumve.'] Lucr. three times has *aqüa*, a form probably peculiar to him and found too only in this book. It is clear that a word of the precise meaning of *singulariter* or *singillatim* is called for by the context; not *simul uniter apta* or the like. 1068 *colescere*: see n. to V 342. 1069 *taurino*: Pliny XXVIII 236 *glutinum praestantissimum fit ex auribus taurorum et genitalibus.* 1072 *Vit. lat.*: V 14 *liquoris Vitigeni laticem.* *aqüai*: see 552. *audent* = non dubitant: 1191 *succedere frigus Non dubitabat*: or else = volunt: see n. to IV 508 *ausis.* 1078 *res una*, hence called *chrysocolla* or gold-solder. 1080 *iam quam multa*: I 104 *quam multa tibi iam fingere possunt Somnia.* 1081 comp. 919: the one seems almost to be written with reference to the other. [1083 comp. Eurip. frag. 364 v. 5 (Nauck) Βραχεῖ δὲ μύθῳ πολλὰ συλλαβὼν ἐρῶ.] 1084 *Quorum*, 1086 *iunctura haec*: strict syntax would require *horum*, as Lamb. has written: perhaps the turn of expression has been caused by 1085 *Ut cava* cet.: Prop. II 1 55 *Una meos quoniam praedata est femina sensus, Ex hac ducentur funera nostra domo*; Cic. ad Att. VIII 14 1 *qua expectatione*; Caesar ib. IX 16 3 *hanc gratiam* = huius rei gratiam; de fin. II 66 *hic dolor*: see Madvig there: Ov. met. IV 431 *cognata exempla*, harshly for *cognatarum exempla*; [Caes. b. civ. III 60 3 *quo pudore*, where see Kraner (Hofmann): see too Herzberg Prop. vol. III p. 241 and 513.] 1085 *haec* cet. i.e. haec cava illius plenis illaque cava huius plenis: for the position of *que* see n. to II 1050. 1087 *plicata*: the particip. seems to be very rare: Sen. epist. 95 2 mss. have *historiam...artissime plicatam.* 1088 *coplata*: see n. to 1067 *singlariter.* 1089 after dwelling at inordinate length on the early parts of this question, 919 *Et nimium longis ambagibus est adeundum*, he hurries on at the end, 1081 *Nec tibi tam longis opus est ambagibus*, and finishes abruptly, as if he felt, what is indeed the truth, that he had after all quite failed in clearing up the mystery.

1090—1137: now to explain the cause of diseases: many particles, both salutary and noxious, are ever flying about; sometimes the latter are able to corrupt the air; then comes pestilence, either in clouds and vapours, or out of the corrupted earth: it is seen what effects change of climate has on men, and how much climates differ, and how particular diseases infest particular countries; thus a strange atmosphere can come to us in mists and vapours and corrupt our air, and fall on the water we drink or the food we and other creatures eat, or make us inhale infec-

tion: thus it comes to the same thing whether the bad atmosphere travels to us or we travel to it.—Isid. de nat. rer. 39 2 imitates this paragraph. **1094** *supra*, 771 foll. **1095** *quae sint morbo mortique*: 771 *Multa, cibo quae sunt*; see n. there. **1098, 1125** and **1132** *pestilitas* is another Lucretian word, *pestilentia* not suiting the metre. **1099** *extrinsecus* cet.: 956 *Morbida visque simul cum extrinsecus insinuatur*; see n. there. **1101** *ubi putorem* cet.: II 872 *putorem cum sibi nacta est Intempestivis ex imbribus umida tellus*; 928 *terram Intempestivos quom putor cepit ob imbris*: here he adds *solibus*, so powerful in producing such epidemics. **1103** comp. Ov. trist. III 3 7 *Nec caelum patior nec aquis adsuevimus istis*: but Pliny paneg. 15 *diversam aquarum caelique temperiem ut patrios fontes patriumque sidus ferre consuesti.* **1104** *Temptari*, a technical word for the attack of disease: comp. 1116 *temptantur*, 1137 *temptare.* **1105** *disc. res*: II 1018 *verum positura discrepitant res*: the little word *res* is made to perform a legion of functions. **1106** *quid putamus*: for the indic. comp. Juv. IV 28 *Quales tunc epulas ipsum gluttisse putamus Induperatorem?* and Mayor there, and ib. 130, where he cites Pliny epist. IV 22 6, and Madvig opusc. II p. 39 foll.: comp. too III 950 *Quid respondemus?*; Pliny epist. IV 25 3 *quid hunc putamus domi facere, qui* cet.; [Petron. 56 *quid putamus difficillimum esse artificium? ego puto medicum et nummularium*; Mart. VIII 47 2 *unum quis putat esse caput?*:] similar in principle is the use of *quid putas? quid credis?* and the like. *Brittanni*: *Brittannis* has no sense; for *caelum* would then be quite indefinite, and *quod in Aegypto est* must refer to *Brittannis*: the length of the first syll. appears unexampled; whereas that is the usual quantity of *Brīto.* **1107** *claudicat* seems to mean, is depressed, lies low, and so leans over like a limping man: comp. Virg. geor. I 240 *Mundus, ut ad Scythiam Riphaeasque arduus arces Consurgit, premitur Libyae devexus in austros.* Upper Egypt and Britain seem almost proverbial in this matter: Cleomedes I p. 42 παρὰ μὲν Συηνίταις καὶ Αἰθίοψιν ἐλάχιστον φαίνεται τὸ τοῦ πόλου ὕψος, μέγιστον δὲ ἐν Βρεταννοῖς: *claudicat* may have the same force as IV 436 *clauda*; see n. there. **1108** *et* (i.e. id quod est) *Gadibus.* **1109** comp. 722 *Inter nigra virum percocto saecla colore.* **1111** *Quat. a ventis*: Virg. geor. IV 298 *Quattuor a ventis*; the usual force of *a ventis* is, on the side exposed to the wind; as v 754 *a terris*, on the side towards the earth: here *a ventis, partibus* are rather used as *a fronte, a tergo*: Livy XXVII 48 15 *ita ex omnibus partibus, ab fronte, ab latere, ab tergo trucidantur*; it means therefore in the regions where these winds and quarters of heaven are. **1114** Seren. Samon. 133, quoted by Marullus in marg. Victor., *Est elephas morbus tristi quoque nomine dirus. elephas* or *elephantiasis*, for both names are used by Galen, is described by him in various places and fully by Celsus III 25 and others; its name is derived from the condition to which it reduces the skin: Kraus medicin. Lex. says that Lucretius'

limitation of its range is true of real elephantiasis at the present day. 1116 *Atthide* is used for *Attica* more than once by Mela. *gressus*: is this gout, or the ταν τοῖσιν ἀντικνημίοις ἑλκύδρια of Aristophanes? the expression would seem to point to gout; but Virg. geor. II 94 *Temptatura pedes* and Sen. epist. 83 at end *temptantur pedes* are said of the reeling of drunkenness. 1119 *quod—Commovet* must apparently be taken together, as *est* cannot well be understood in Lucr.; and then *caelum*, as well as *aer*, is nom. to *coepit*: the sentence would of course be simpler, if *est* could be understood, or if we read *alienumst*. 1121 comp. 1099. 1122 *immutare*, neut.: see n. to III 502. *coactat*; 1161 *coactans*: a Lucretian word. 1126 *ipsas* seems only to distinguish *fruges* from *aquas*; at all events *aquas* and *fruges* seem to be exactly coordinate, and the one to have no preeminence over the other: comp. 658 *arripit acer Saepe dolor dentes, oculos invadit in ipsos.* 1127 *hom. pastus pec. cibatus*: pecudum pastus hominumque cibatus would be more usual. 1128 *aere in ipso*, i.e. intus in aere: see n. to IV 736. 1132 *pigris* I take to be a mere poetical epithet; not to apply to the languor produced by disease: Sen. Oed. 133 clearly refers to it: *Prima vis tardas tetigit bidentes.* *bal.*: see n. to II 369 *Balantum pecudes.* 1134 *amictum* is a bold, but most expressive metaphor, as the atmosphere wraps us round like a garment: *caeli tegmen*, as we have seen, is much more common. 1135 *cŏruptum* is defended by Lucilius' *ore cŏrupto*, 'dempsit enim unam litteram per metaplasmum *r*' Consentius p. 400 K.; for whether Lucilius so writes seriously or satirically, the *cŏ* must have been in use; and Isid. l. l. evidently read *corruptum* in Lucr.: 'ita etiam aer corruptus ex aliis caeli partibus veniens cet.'

1138—1251: a plague thus engendered once devastated Athens: a large portion of the people were attacked by it; many of them after every form of bodily and mental suffering died in a few days; others later from the subsequent effects; others escaped, often with the loss of some member; medicine was of no avail; even friends and relatives frightened by the infection often deserted the sick.—The poet wishing to illustrate what he has laid down as the cause of disease, concludes his poem with this description which is an imitation, in many parts a close translation, of Thucydides II 47—54. One would infer from the words of Lucr. that he had no practical or scientific knowledge of any such like form of disease: he is content to take on trust whatever the historian says and, as we shall see, more than once misapprehends or misinterprets his words. I have looked into many professional accounts of this famous plague: the writers almost without exception praise Thucydides' accuracy and precision, and yet differ most strangely in the conclusions they draw from his words: physicians, English French or German, after examining the symptoms have decided that it was each of the following maladies, typhus scarlet putrid yellow camp hospital jail fever, scarlatina maligna,

the black death, erysipelas, smallpox, the oriental plague, some wholly extinct form of disease: each succeeding writer at least throws doubts on his predecessors' diagnosis. Lucretius' copy must manifestly be even more vague and inconclusive. The truth is that having laid down his general principles of disease and vindicated his philosophy, he seeks now to satisfy his poetical feeling by a powerful and pathetical description which he has plainly left in an unfinished state. He has been imitated in turn by Virgil geor. III 478—566, closely by Ovid met. VII 523—613, by Seneca Oed. 110—201, by Livy more than once, and by others.

1138 *mortifer aestus* has no reference I think to *Haec*: *Haec ratio* is the law of diseases just mentioned, which at this time caused a *mortifer aestus*; so that Lachmann's objection 'quis enim has res diversissimas coniungat, *haec ratio et mortifer aestus morborum*' has no force: in fact the v. is a paraphrase of 1098 *ea vis omnis morborum pestilitasque*; comp. too 1090 *ratio quae sit morbis* cet.: and for the expression 830 *vis haec atque aestus Averni*. The first words of Virgil's description *Hic quondam morbo* are evidently suggested by Lucr. and it is not unlikely that the *aestu* of 479, used in a different sense, is a reminiscence of our *aestus*; and it is nearly certain that Ovid l. l. 529 *et ignavos inclusit nubibus aestus* comes from Lucr. when we recollect the mode in which he makes pestilence approach, 1099 *ut nubes nebulaeque*, 1121 *Ut nebula ac nubes*. *aestus* has essentially the same force as in 1049, 1051, 1056, and elsewhere, i.e. a copious emanation of particles: dirae 23 *Mutent pestiferos aestus*. 1139 *fun. red.* i.e. funestavit, morte polluit: Virgil l. l. 481 *Corrupitque lacus, infecit pabula tabo*, the rhythm is evidently modelled on Lucr. as Conington has pointed out; comp. n. to v 202: Livy III 32 2 *vastati agri sunt, urbs assiduis exhausta funeribus*. *Vast. vias*: Il. E 642 χήρωσε δ' ἀγυίας. *exh. civ. ur.*: Aen. VIII 571 *tam multis viduasset civibus urbem*; Stat. sil. III 5 73 quoted by Wak. has the very words of Lucr. 1141—1143 Lucr. adapts his description to his general theory; comp. especially 1119 *ubi se caelum quod nobis forte alienum Commovet* cet.: the strange atmosphere of Egypt put itself in motion, travelled gradually over much sea and air and at last arrived at Athens: Thuc. says no such thing: with his usual caution he tells us that it began, ὡς λέγεται, in Aethiopia, and descended to Egypt and Persia; and suddenly broke out in Athens beginning with the Piraeus; so that it is possible a ship carried it direct from Egypt. 1141 *veniens*, *ortus*, *permensus*: see notes 1 and 2 to v 692 693; and 998 *confirmata atque locata...praeposta parata*: Lach. plays sad havoc with the participles of Lucr. 1143 *Incubuit*: Hor. od. I 3 30 *nova febrium Terris incubuit cohors*; Thuc. l. l. 48 2 has ἐνέπεσε, Ovid l. l. 524 *Incidit*. 1144 *cat. dab.*: Virgil l. l. 556 *Iamque catervatim dat stragem*. 1145 *Principio* cet.: Thuc. 49 2 πρῶτον μὲν τῆς κεφαλῆς θέρμαι ἰσχυραί κ.τ.λ.: θέρμαι and *fervore* appear to have nothing special in them, as Arnold seems to imply of the former,

but to denote heat generally. *gerebant* simply in the sense of having is common in the best writers: see n. to III 1049: and is often used of the parts of the body: Ov. met. II 585 *neque iam palmas nec pectora nuda gerebam*; V 161 *Tutaque terga gerens.* 1146 *suf. luce* expresses the φλόγωσις of Thuc. and means I presume the glare of inflammation: Sen. Herc. Oet. 1405 *igne suffuso genae.* 1149 *an. int.*: Hor. ars 111 *Post effert animi motus interprete lingua.* 1151 *Inde ubi* cet.: it cannot fairly be questioned that in these vss. Lucr. misrepresents Thuc. who says that the disease first attacked the head, then the throat and tongue, then l. l. ἐν οὐ πολλῷ χρόνῳ κατέβαινεν ἐς τὰ στήθη ὁ πόνος, and then always descending, ὁπότε ἐς τὴν καρδίαν στηρίξαι, ἀνέστρεφέ τε αὐτὴν καὶ ἀποκαθάρσεις χολῆς πᾶσαι ὅσαι ὑπὸ ἰατρῶν ὠνομασμέναι εἰσὶν ἐπῄεσαν, i.e. as all the commentators of Thuc. explain it, when it got below the breast and reached the stomach, discharges of bile of every sort took place; it being expressly stated on good authority that by καρδία the ancients, particularly Hippocrates and Thuc., denoted τὸ στόμα τῆς γαστρός. But Lucr. has evidently taken καρδία in its usual sense: such a mistake was not unlikely to occur; but it has caused him sadly to misrepresent the case: he makes the disease not merely descend into the breast, but wholly fill the breast, and stream together into the sad heart, and thus at the very commencement of its course force all the fastnesses of life, though the patients afterwards go through many stages of suffering and live at least eight or nine days: Thuc. says some sentences later διεξῄει γὰρ διὰ παντὸς τοῦ σώματος ἄνωθεν ἀρξάμενον τὸ ἐν τῇ κεφαλῇ πρῶτον ἱδρυθὲν κακόν. This error of Lucr. was pointed out by Victorius three centuries ago in his variae lectiones XXVIII 17 and more fully in a letter to Hieronymus Mercurialis published by Passow in 1832: Lamb. in vain asserts that Lucr. here uses *cor* for *stomachus* after the Greeks; his wide departure from Thuc. and the whole turn of his language prove that *cor* here, as elsewhere, means the seat of life; nor is there the least authority for supposing that *cor* could have any other meaning. 1153 *vit. cl.*: I 415 *vitai claustra resolvat*; see n. to I 71. 1155 *perolent* seems not to occur elsewhere. 1157 *leti lim.*: 1208 *metuentes limina leti*; II 960 *leti iam limine ab ipso.*

1158 1159: Thuc. adds to the words last quoted καὶ αὗται μετὰ ταλαιπωρίας μεγάλης, referring to the great distress caused by the violent vomitings: Lucr., having as we saw quite misrepresented the rest of the sentence, would not understand these last words: he has therefore given quite a different turn to the words of Thuc. in these two vss.; he certainly does not refer to the sentence here quoted by Wak.: his translation of it comes later, as we shall see. 1158 *anxius angor* occurred above III 993. 1160 *Singultus frequens* represents Thucydides' λὺγξ κενή, which is commonly explained to be an empty retching, where nothing is brought up. 1161 *Corripere* 'to draw together in spasm':

comp. v 1223 *Corripiunt membra*; and IV 83. *coactans*, as 1122: coactans eos corrip., dissoluebat et fatigabat eos, vel ante defessos. **1163** and **1170** *posses*: see n. to I 327 *possis*; and comp. the use of *crederes* and the like. **1167** *ut est* cet.: 'ut est sacer ignis, dum per membra diditur' Lach. *sacer ignis*: see n. to 660: comp. Virg. geor. III 566 and Sen. Oed. 187. **1172** *partim* = nonnulli; see n. to v 1143: 1211 *partim* = 1210 *nonnulli*. **1175** *ipso* means straight with mouth, with mouth rather than or before any other part: comp. Livy XXI 58 3 *vento mixtus imber cum ferretur in ipsa ora*; XXII 46 9 *pulvere in ipsa ora volvendo*; comp. too Lucr. himself IV 651 *in ore ipsoque palato*; 1044 and VI 1207 *partis genitalis corporis ipsas*. **1176** *Insedabiliter* appears not to be found elsewhere: adverbs of this form seem to have been common in popular language: the scribblings on the walls of Pompeii shew not only *amabiliter*, but also *fratrabiliter incurabiliter irrumabiliter festinabiliter* and one in n. 2138. *sitis, mersans*: a bold but expressive metaphor: thirst so drenches the body, that no after drenching of water can overcome it: comp. Stat. Achill. I 303 *totisque novum bibit ossibus ignem*. As A and Niccoli have *mersans* and the Vienna fragment has *messans*, the *inerrans* of B is plainly a mere clerical error, and will not do to build conjectures upon. **1177** ἐν τῷ ὁμοίῳ καθειστήκει τό τε πλέον καὶ ἔλασσον πότον. **1179** *mussabat*: another fine metaphor, muttering under breath, as not knowing what to prescribe and therefore not daring to speak out; see Conington geor. III 550: Pliny epist. VII 1 5, being ill of fever, says 'cum mussantes medicos repente vidissem'; from which use Lucr. may have taken his metaphor: see Nonius and Donatus cited by Wagner aulul. 131. **1180** *patentia, ardentia, expertia*: see notes 1 and 2 to v 692 693. *ardentia morbis Lumina*, **1186** *Creber spiritus* cet., **1203** *Corruptus sanguis* cet.: Virg. l. l. 504 *Sin in processu coepit crudescere morbus, Tum vero ardentes oculi atque attractus ab alto Spiritus...it naribus ater Sanguis*: this would serve to defend *ardentia*, if it needs defence: *morbis* seems to mean each with his own disease: but with 1180 1181 comp. Ovid met. VI 246 *simul suprema iacentes Lumina versarunt, animam simul exhalarunt*; VII 579 *Lassaque versantes supremo lumina motu*; and v 134 *Singultantem animam et versantem lumina vidit*: which might seem in favour of Lachmann's subtle and possibly true emendation: the peculiar rolling of the eyes before death is a very marked symptom. This symptom and most of those which follow down to 1195 are not found in Thuc.: they appear, most of them at all events, to be derived from the writings of Hippocrates which Lucr. must have been well acquainted with; and not to have any special reference to this plague: Lucr. indeed seems to forget for the time that he is describing the gradual progress of a disease in which some died and others recovered as is told farther on; and to think only of drawing a moving picture of the signs of coming death.

1183 *Perturbata* cet.: παραφροσύνη in various forms is mentioned by Hippocrates as θανάσιμον. *animi mens*: see n. to III 615. 1184 *Triste sup.* cet.: Hippocr. prorrhet. I 49 mentions the προσώπου τὸ λίην σκυθρωπόν as a very bad symptom. 1185 so Hippocr. praenot. Coac. 193 βόμβος ἐν ὀξέσι καὶ ἦχος ἐν ὠσὶ θανάσιμον. 1186 Hippocr. progn. 8 μέγα δὲ ἀναπνεόμενον πνεῦμα καὶ διὰ πολλοῦ χρόνου παραφροσύνην δηλοῖ. 1187 *Sudoris...per collum*: Hippocr. progn. 9 mentions sweats on the head and neck only as very bad, and adds οἱ δὲ κεγχροειδέες καὶ μοῦνον περὶ τὸν τράχηλον γινόμενοι πονηροί: the latest editor Ermerins omits these words because Galen says some mss. want them; Lucr. was less critical. 1188 *croci* cet.: Hippocr. l. l. 24 τό τε γὰρ ξανθὸν πτύελον ἄκρητον ἐὸν κινδυνῶδες, and elsewhere speaks of saltness of spittle as a dangerous symptom. 1190 *In manibus* cet.: Hippocr. l. l. 7 mentions at length nervous twitchings of the hands, κροκίδας ἀπὸ τῶν ἱματίων ἀποτιλλούσας, and the like, as deadly symptoms; but this 'fumbling with the sheets and playing with flowers' and the like have ever been noted as sure signs of death. *trahere*: see n. to 595 *movere*: Lach. says the *trahere* for *trahi* is admissible, when the act is involuntary and there is no external and *apparent* cause for the contraction. *tremere artus*: this shivering Hippocr. mentions as a bad sign in fever. 1191 'they were as cold as any stone; then I felt to his knees, and so upward, and all was cold as any stone'. 1192 *Non dub.*: IV 188 *Non dubitant transire*; VI 1072 *aquai fontibus audent Misceri*. *item ad supremum* cet.: these signs of approaching death seem almost translated from Hippocr. progn. 2 ῥὶς ὀξεῖα, ὀφθαλμοὶ κοῖλοι, κρόταφοι ξυμπεπτωκότες...καὶ τὸ δέρμα τὸ περὶ τὸ μέτωπον σκληρόν τε καὶ περιτεταμένον καὶ καρφαλέον ἐόν: these words recur little changed in the praenot. Coac.: Celsus II 6 translates him thus '*ad ultima vero iam ventum esse testantur nares acutae, collapsa tempora, oculi concavi,...cutis circa frontem dura et intenta.* 1193 *nasi acumen*: 'his nose was as sharp as a pen': Afranius has *primoribus naribus*, Lucilius *primoribu' partibu' naris* and *primores unguis* (Mueller p. 221). 1195 *in ore trucei rictum*, another well-marked symptom: 2 Hen. VI 3 3 24 *See how the pangs of death do make him grin*; par. lost II 845 *and death Grinnd horrible a gastly smile*; [Sen. Herc. Oet. 1172 *non truci rictu gigans.*] 1196 *Nec nimio post*: see n. to V 988 *Nec nimio plus.* *rigidi mor. iac.*: you can say *vir iacet merita morte* i.e. *cecidit* or *occisus est mer. morte*; thus Odyss. α 46 Καὶ λίην κεῖνός γε ἐοικότι κεῖται ὀλέθρῳ, which Ovid fasti III 707 translates *Morte iacent merita*; but scarcely *artus iacent rigida morte*: this a Lambinus and Lachmann felt instinctively, a Wakefield never could feel; and yet IV 454 *in summa corpus iacet omne quiete* might be thought to mediate between the two expressions.

1197 *Octavo* cet.: he now returns to Thuc. who says 49 8 ὥστε ἢ διεφθείροντο οἱ πλείους ἐναταῖοι καὶ ἑβδομαῖοι κ.τ.λ. meaning of course that

the seventh and the ninth were the two critical days: the sad necessity of the metre I fear has caused Lucr. thus seriously to vary the statement. 1198 *lampade*: see n. to v 402 *lampadă*. 1199 *fun. leti*: III 42 *Tartara leti*. 1200 *nigra proluvie alvi* is the διαρροίας ἀκράτου of Thuc.; Galen quoted there by Arnold explains one kind of ἄκρητος ὑποχώρησις to be the τὸν τῆς μελαίνης χολῆς χύμον unmixed with any watery matter. 1202—1204 there is nothing in Thuc. corresponding to these vss., but just before Lucr. has, as we saw, been copying him: thus 1201 expresses Thuc. l. l. οἱ πολλοὶ ὕστερον δι' αὐτὴν ἀσθενείᾳ ἀπεφθείροντο: 1205 foll. he again takes him up, καὶ εἴ τις ἐκ τῶν μεγίστων περιγένοιτο κ.τ.λ.: what comes between the words just quoted is as follows, διεξῄει γὰρ διὰ παντὸς τοῦ σώματος ἄνωθεν ἀρξάμενον τὸ ἐν τῇ κεφαλῇ πρῶτον ἱδρυθὲν κακόν, the disease took its course through the whole body beginning in the head: is it not then probable that the poet, having a corrupt copy or an imperfect recollection of his author, has misapprehended his meaning, confounding τὸ ἐν τῇ κεφαλῇ κακόν with *capitis dolor*, and making the whole substance of the body run into the head instead of letting the disease pass from the head through the whole body? 1203 *sanguīs*: see IV 1050. 1204 *Huc*, 'in alvum aut nares' Lach.: I believe it refers only to *nares*: besides Thuc. says nothing at all here of the *nares*, nor is it easy to see why Lucr. should do so except from misapprehending Thuc. in the way suggested above. 1205 *Profl. exierat*, 1217 *exeiret odorem*: see n. to v 1330 *exibant adactus*. 1209 *ferro priv.*: the words of Thuc. which Lucr. represents in 1206—1211 are these, τῶν γε ἀκρωτηρίων ἀντίληψις αὐτοῦ ἐπεσήμαινε· κατέσκηπτε γὰρ ἐς αἰδοῖα καὶ ἐς ἄκρας χεῖρας καὶ πόδας, καὶ πολλοὶ στερισκόμενοι τούτων διέφευγον, εἰσὶ δ' οἳ καὶ τῶν ὀφθαλμῶν: the disease passed through the body from the head downwards ἐς τὴν κοιλίαν, and if a man was not killed by the terrible ulceration and diarrhoea, it fastened on the extremities, the toes fingers genitals; and some escaped with the loss of these, στερισκόμενοι τούτων, or of the eyes: Lucr. however has understood στερισκόμενοι to mean *ferro privati*, and this has given an awkward turn to his whole sentence: this misapprehension was pointed out centuries ago by Victorius var. lect. XXXV 8, and in the letter above referred to, and seems to have brought upon him no small obloquy, from Lamb. and his correspondent Mercurialis among others: in those days, while everybody had ostentatiously to protest against the religion of Lucr., it seems to have been deemed an impertinence to question his knowledge of Greek or his clinical and surgical skill. 1211 *tamen*, quamvis sine manibus cet. 1212 *Usque adeo mortis* cet.: he takes advantage of his own error to point his favourite moral. *incesserat* is from *incedo*, not *incesso*: [comp. Caes. b. civ. II 29 1 *magnus omnium incessit timor auribus*: see Kraner (Hofmann) here: see also Draeger hist. synt. I p. 384 'Sall. Cat. 31 3 *quibus belli timor insolitus incesserat*;

Livy IV 57 10 *gravior cura patribus incessit*; wogegen Livius sonst den accus. setzt.'] 1213 1214 are a very literal translation of Thuc. τοὺς δὲ καὶ λήθη ἐλάμβανε παραυτίκα ἀναστάντας τῶν πάντων ὁμοίως καὶ ἠγνόησαν σφᾶς τε αὐτοὺς καὶ τοὺς ἐπιτηδείους, with the omission however of παραυτίκα ἀναστάντας, which seems of importance in the account; see the commentators of Thuc. 1214 *neque* = non: see n. to II 23: Livy XL 20 6 *ut neque scribi sibi vellet*, resembles Lucr.: [comp. too Aen. XII 903 *neque . . se cognoscit*; Lucil. I 12 *nec si Carneaden ipsum Orcu' remittat.*]

1215 *supra* goes with *iacerent*, as the prepos. only governs an accus. 1219 foll. comp. Livy XLI 21 7 *cadavera intacta a canibus ac volturibus tabes absumebat, satisque constabat nec illo nec priore anno in tanta strage boum hominumque volturium usquam visum.* 1219 *solibus*: *soles* for *dies* occurs in Virgil and others. 1222 *fida canum vis*: see n. to IV 681 *promissa canum vis.* 1225 see notes to 1247—1251. *vasta* must have its first sense of *vacua*, *deserta*, therefore almost the same as *Incomitata.* 1227 *ali*: see n. to IV 637. 1228 *Volvere* has much the same force as in Virg. geor. III 85 *volvit sub naribus ignem*, quoted by Wak. *licere* is used as an accus. subst.; see n. to I 418: but here it has a second infin. depending on it, *Volvere* and *tueri*: dederat ut liceret volvere. *cae. tem. tu.*: Aen. IV 451 *taedet caeli convexa tueri.* 1229 comp. Virgil geor. III 511 *Mox erat hoc ipsum exitio.* 1230 foll. in all this part he is closely following Thuc.: I do not commence a new paragraph, as the corresponding sentence in Thuc. could not well begin one. 1232 *morbo* is prob. the abl., the usual case after *implicitus* in Cicero Caesar and Livy; but it may be the dat. as in Livy XLI 21 5 *longinquo, maxime quartanae, implicabantur morbo*; who XXIII 34 11 has a third constr., *non tam in periculosum quam longum morbum implicitum*; as Nepos V 3 4 and XVII 8 6 *in morbum implicitus. morti damn.*: a rare constr.: *damnari in metallum, in opus publicum, ad bestias* are legal terms, for the last of which Apul. met. X 34 has *bestiis esse damnata*: Ov. ars II 387 *Nec mea vos uni damnat censura puellae*; Stat. Theb. VI 55 *Damnatus flammae torus*: *ad supplicium, ad poenam, ad opus damnari* occur in Tac. ann. VI 38, Trajan ap. Plin. 32 (41) 2, Suet. Nero 31 respectively: so Tac. ann. XVI 21 *ad mortem damnabatur.* [Kuehnast Liv. synt. p. 83 says *morti* is ablative here; see too Draeger hist. synt. p. 450 at top.] *ut esset* must be for *ut si, quasi, tamquam esset*, though it is a very rare use: Lach. quotes Val. Flaccus V 92 *fulsere undae, sol magnus ut orbem Tolleret aut nubem quateret polus*: but Nepos too, XIII 3 4, *at ille temeraria usus ratione non cessit maiorum natu auctoritati, et, ut in sua manu esset fortuna, quo contenderat, pervenit*: so mss. rightly I think; but editors read *velut* for *et ut*: is the omission of *si* like Catull. 10 32 *Utor tam bene quam mihi pararim? velut* for *velut si* is more common; I have noted down from Livy alone fourteen instances. 1234 *an.*

am.: auctor. ad Heren. IV 57 *amisit vitam, at non perdidit...amisit animam, potitus est gloriam*; [Plaut. asin. 604 *tibi te vitam esse amissurum*; and see Ussing's references there.] *respectans*, as V 975 *taciti respectabant.* 1235 *Quippe etenim* cet.: what is the meaning of these conjunctions? the poet has just been saying that the most piteous thing of all was to see how those who caught the disease at once lost heart, gave themselves over, and made no effort for life: he then goes on to say '*for* they at no time ceased to catch the infection' and so on. Why this *for*? how can the fear of danger of infection add to the grief and despair of those who are already stricken? both in these vss. and in what precedes and follows the poet is treading closely on the steps of the historian: now read the words he is here translating: 51 6 δεινότατον δὲ παντὸς ἦν τοῦ κακοῦ ἥ τε ἀθυμία (πρὸς γὰρ τὸ ἀνέλπιστον εὐθὺς τραπόμενοι τῇ γνώμῃ πολλῷ μᾶλλον προΐεντο σφᾶς αὐτοὺς καὶ οὐκ ἀντεῖχον), καὶ ὅτι ἕτερος ἀφ' ἑτέρου θεραπείας ἀναπιμπλάμενοι, ὥσπερ τὰ πρόβατα, ἔθνησκον· καὶ τὸν πλεῖστον φθόρον τοῦτο ἐνεποίει: that is to say, the most fearful feature of the plague was this, on the one hand the despondency and utter mental prostration of those who were attacked, on the other hand the great danger of contagion which scared away or else struck down the healthy, ἥ τε ἀθυμία and καὶ ὅτι both of course being subjects of δεινότατον ἦν: now is it not plain that Lucr. has carelessly made καὶ ὅτι depend on what immediately precedes, and has not referred it back to δεινότατον ἦν? and hence the strange paralogism involved in his *Quippe etenim.* *apisci*: this seems a not unnatural, but yet unusual application of the word: Plautus however in his epitaph has *mortem aptus est.* 1238 *cum. fun. fun.*: see n. to III 71 *caedem caede accumulantes.* 1239 *visere ad*: see n. to II 359 *revisit ad stabulum.* But here too the argument is strange: 'this above all heaped death upon death; for those who refused to attend their own sick, killing neglect soon after would punish for their too great love of life and fear of death by a foul and evil end, left to themselves without help': he then adds naturally enough that they who did stay, caught the infection and died. He is here following closely the order of Thuc. who continues εἴτε γὰρ μὴ θέλοιεν δεδιότες ἀλλήλοις προσιέναι, ἀπώλλυντο ἔρημοι: but instead of making οἱ πάσχοντες nom. of ἀπώλλυντο, he took οἱ δεδιότες προσιέναι for its subject; and feeling the weakness of the argument he has tricked it out with these embellishments, and given three lines to express the two words of Thuc. The educated Romans of Lucretius' time had an exquisite knowledge of their own tongue, its syntax, its grammar, its prosody, all its refinements and capabilities; they were also well acquainted with Greek, such as Greek then was; but the Attic of Thucydides and Sophocles, of Plato and Demosthenes had been dead for centuries; and Greek had become the lingua franca of the civilised world. 1240 *mortis timentis*: I find no other instance of this construction; but Livy XXII 3 4 *non modo legum aut patrum maiestatis*,

sed ne deorum quidem satis metuens: Horace has *metuens alterius viri* and *rixarum*; Ovid *metuentior deorum* and *metuentius numinis*; Horace *timidus procellae*, Ovid *timidus deorum*; Juvenal *metuens flagelli* and *virgae*: *cupiens* with a gen. is common in Plautus and Tacitus: [comp. too Virgil's *metuens pericli*; Cic. c. sen. gr. egit 4 *legumque metuentes*; de domo sua 70 *homines legum iudiciorumque metuentes*; Caes. b. civ. I 69 3 *fugiens laboris*; Ter. Ph. 623 *fugitans litium*: see too Draeger hist. synt. I p. 445.] **1241** *Poenibat*: see n. to IV 220 *moerorum*. **1242** *mactans*: 805 *plagae mactabilis*. **1243** *ibant*: see n. to III 265 *ire*.

1247—1251 appear like 1225 to be out of place and unconnected with what precedes and follows: they refer also to the same matter as that verse, to the neglect of the usual rites of burial: Lucr. in all this part of his poem follows the order of Thuc.: well 1246 concludes the topics contained in Thuc. 51; 1252 commences the questions with which Thuc. 52 opens: both then dwell in the same order on the crowding of people from the country into the town and the terrible mortality caused thereby; speak of the dead bodies piled up in the streets and by the fountains; the temples crammed with corpses: Thuc. then goes on to say νόμοι τε πάντες συνεταράχθησαν, οἷς ἐχρῶντο πρότερον περὶ τὰς ταφάς, ἔθαπτον δὲ ὡς ἕκαστος ἐδύνατο: so too Lucr. 1278, as if like Thuc. he were entering on a new question, begins *Nec mos ille sepulturae* cet. and in four verses paraphrases the words just cited: Thuc. then continues, καὶ πολλοὶ ἐς ἀναισχύντους θήκας ἐτράποντο σπάνει τῶν ἐπιτηδείων διὰ τὸ συχνοὺς ἤδη προτεθνάναι σφίσιν: and similarly Lucr. 1282 continues his paraphrase, *Multaque res subita* cet.: Thuc. then goes on ἐπὶ πυρὰς γὰρ ἀλλοτρίας, φθάσαντες τοὺς νήσαντας, οἱ μὲν ἐπιθέντες τὸν ἑαυτῶν νεκρὸν ὑφῆπτον: these simple words Lucr. expresses with some poetical embellishment in the last four vss. of his poem: Thuc. completes the above sentence with this clause, οἱ δὲ καιομένου ἄλλου ἄνωθεν ἐπιβαλόντες ὃν φέροιεν ἀπῄεσαν: the meaning of these words is given with similar embellishment in the vss. 1247—1251 which we are now considering. As the end of the poem is in an unfinished state, and as these vss. as well as 1225 are clearly out of place having no connexion either of sense or grammar with the context, is it not probable that they, like so many others, are incomplete sketches and marginal additions of the poet's, which he intended, but did not live, to embody with the rest of the poem, and which his editors, not knowing what else to do, put into their present place, almost it may be at hap-hazard? Lachmann's treatment of these vss. is highly unsatisfactory: *cernebant* is a violent change; and the *lacrimis lassi luctuque redibant* he refers to the lookers on who had something else to do in attending on their sick; not to those who had struggled to bury their dead, though that must be their meaning; nay it seems to me almost certain that the poet means by these words to express the ἀπῄεσαν of Thuc. l. l. **1247** *Inque aliis alium* has ai

present nothing to govern it, perhaps never had; for the poet may never have completed the sentence: *Aut etiam bustis iam ardentibus iniciebant*, or the like would give the sense required. 'Cic. ad Att. IX 10 2 *nec umquam aliud in alio peccare destitit*' N. P. Howard. *populum suorum*: besides Ovid met. VI 198 quoted by Lach., comp. ib. XI 633; heroid. 9 51; 14 115; Sen. epist. 74 3; 77 13; [dial. x 2 4 *circumfusus clientium populus*;] Pliny XXXV 6; Pliny paneg. 23; Arnob. IV 7; Apul. met. II 8; IV 24; V 28; X 32. 1249 *bonam partem*, 1259 *Nec minimam partem*: see n. to III 64 *Non minimam partem*. 1251 *luctus* for the sickness or death of friends.

1252—1286: the country-people flocked into the town and increased the misery; all public places, even the temples, were crowded with the dead and dying; religion and all the decencies of burial were neglected. 1253 comp. V 933 *Nec robustus erat curvi moderator aratri Quisquam.* 1255 *ded. mor.*: see n. to II 1043. 1260 *languens, conveniens*: see notes 1 and 2 to V 692 693. 1262 *aestus*: Lachmann's *astu* I now think cannot be right: he has shewn sufficiently from Vitruvius and Priscian that *astu* or *asty* was used by the Romans for any case of ἄστυ; but its use here would be very abrupt, and Lucr. would I think have said *in astu*, as Vitruvius twice does. The heat too was perhaps the most marked cause of mortality; comp. the words of Thuc. here imitated, ἀλλ' ἐν καλύβαις πνιγηραῖς ὥρᾳ ἔτους διαιτωμένων ὁ φθόρος ἐγίγνετο οὐδενὶ κόσμῳ: and Livy III 6 3 *ea colluvio mixtorum omnis generis animantium et odore insolito urbanos et agrestem confertum in arta tecta aestu ac vigiliis angebat, ministeriaque in vicem ac contagio ipsa vulgabant morbos*; one does not wish to lose *Confertos*, any more than *aestus*; else *aestu Confectos* would complete the sentence: Plaut. most. 764 is too corrupt to support *aestu* in the sense 'during the heat.' I therefore think a v. has been lost. 1264 Thuc. 52 2 καὶ ἐν ταῖς ὁδοῖς ἐκαλινδοῦντο καὶ περὶ τὰς κρήνας ἁπάσας: so that the *silanos aq.* are these κρῆναι, and must have got their name from the water coming out of the mouth or body of a Silenus; see also Festus and Celsus in Forc., and Herzberg Prop. III p. 214. [*Silani* were apparently *fistulae* by which the water spirted out: comp. corp. inscr. Lat. VIII n. 6982 among a number of works of art 'silani aerei n. VI': and before, 'statuae aereae n. VI et Cupido. marmoreae n. VI.'] 1266 *Intercl. an.*: Livy XXIII 7 3; Tac. ann. VI 50. *dulc. aq.*: Livy IV 12 6 *per largitionis dulcedinem*; § 7 *dulcedine contionum*; [Cic. ad Q. frat. I 2 7 *quaedam dulcedo iracundiae.*] 1268 comp. Ov. met. VII 577 *Semianimes errare viis.. Adspiceres.*
1269 1270 Cic. Tusc. disp. III 26 cites from an old poet *barba paedore horrida atque Intonsa infuscat pectus inluvie scabrum*, which, if defence is needed, seems to defend the second v. which Lach. brackets: [comp. too Sen. Herc. Fur. 705 (709) *cuncta paedore horrida.*] 1270 Pacuv. 20 *illuvie corporis*. *pel. sup. os. un.* appears to be proverbial: Plaut.

capt. 135 *Ossa atque pellis sum miser aegritudine*; aulul. III 6 28 *Qui ossa atque pellis totust: ita cura macet*; Virg. ecl. III 102 *vix ossibus haerent*; Hor. epod. 17 22 *ossa pelle amicta lurida.* [1271 *sor. sep.*: Sen. rhet. controv. I 1 18 *obrutus sordibus.*] 1274 *caelestum*: so *infantum, parentum, meantum, salutantum*, etc. *manebant*: see n. to II 843 *manere*; [and comp. Catull. 76 5 *Multa parata manent in longa aetate*] 1275 Gellius XII 10 8 *Titus autem Lucretius in carmine suo pro* aedituis aedituentes *appellat.* 1276 foll.: it would not be easy to say what feeling was uppermost in the mind of Lucr. when following in the footsteps of Thuc. he wrote these vss. 1277 *enim* see n. to I 419: Virg. ecl. I 14 *namque* comes 6th, Catull. 66 65 5th in the sentence. 1278—1286 are paraphrased by Ovid met. VII 606—610. 1279 *humari*: perhaps N. P. Howard's *humare* is to be read; but I think *humari* may well have the reciprocal force you find in Soph. Phil. 945 Θανὼν παρέξω δαῖθ' ὑφ' ὧν ἐφερβόμην. 1281 *pro re pr.*: Aen. IV 337 *Pro re pauca loquar* seems to mean 'pro causa nostra', as Sen. Herc. Fur. 401 interprets, *pauca pro causa loquar Nostra.* 1282 *res sub.*; Livy III 8 7; X 26 9; XXV 38 1; XXVI 44 2; XXVIII 30 7; Plaut. curc. 302. 1283 *rogorum* depends on *extructa*, as 561 *quae sunt extructa domorum*; IV 361 *saxorum structa*: Ovid l. l. 610 *alienisque ignibus ardent*; Sen. Oed. 64 *Tum propria flammis corpora alienis cremant. Diripitur ignis: nullus est miseris pudor.* 1284 *Insuper* followed by an accus.; see n. to 192; Lucr. uses also the abl. 1286 *Rix. pot. qu. c. desererentur*: the regular constr. whether a finite verb or a partic. precede: Livy III 21 6 *aliorum exemplo peccate potius quam alii vestro recte faciant*; IX 14 16 *omnia patienda potius quam proderetur salus*; XXXIX 10 2 *mori et sibi et illi satius esse quam id faceret*; II 48 6 *non diutius, quam recens dolor proximae cladis transiret, quiescentibus*: even with adjectives; as Mela III 43 *ad frequentiora quam adire audeant.* [Comp. Caes. b. Gall. VII 17 7 *praestare omnes perferre acerbitates quam non civibus Romanis . . . parentarent*: and see Weissenborn Livy II 15 2.]

INDEX

REFERENCES WITHIN ( ) ARE TO NOTES I

CAMBRIDGE: PRINTED BY J. & C. F. CLAY, AT THE UNIVERSITY PRESS.